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5 Avena flaveolens	— — — }
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7 Aira præcox	— — — }
8 Montia fontana	— — — } TRIANDRIA Trigynia.
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38 Brachysa muralis	— — — } MONADELPHIA Decandria.
39 Cardamine amara	— — — }
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44 Lathyrus pratensis	— — — } DIADELPHIA Decandria.
45 Trifolium agrarium	— — — }
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53 — glabra	— — — } SYNGENESIA Polygamia æqualis.
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51 —— viride	2
52 —— polyppermum	2
53 —— Bonus Henricus	3
83 Chrysophyllum oppositifolium	2
93 Ceratium semidecandrum	2
94 —— viscosum	2
95 —— vulgatum	2
96 —— aquaticum	1
114 Caltha palustris	1
138 Cardamine amara	3
139 —— pratensis	3
171 Carduus marianus	3
190 Carex pendula	3
26 Dipsacus pilosus	1
27 —— sylvestris	3
132 Digitalis purpurea	1
133 Draba verna	1
64 Epilobium hirtifolium	1
65 —— villosum	2
66 —— tetragonum	2
67 —— angustifolium	2
68 —— montanum	3
69 Erica tetralix	1

	Fasc.
12 Aira water	—
113 Anemone wood	—
52 Allfeild	—
104 Avena	—
125 All-heal	—
19 Brome-Grafs soft	—
21 —— hairy stalk'd	—
20 —— barren	—
200 Bryum broom	—
201 —— curled	—
202 —— swan's neck	—
203 —— brown }	—
204 —— green }	—
205 —— awl-shaped	—
206 —— filvery }	—
207 —— matted }	—
156 Birds foot-Trefoil common	—
71 Bifort common	—
176 Butterbur	—
121 Bugle common	—
6 Brook-lime	—
191 Burnet	—
123 Betony wood	—
25 Blinks	—
141 Crane's-bill Hemlock-leav'd	—
142 —— stinking or herb Robert	—
143 —— doves-foot common	—
144 —— mountain	—
128 Cymbalaria ivy-leav'd	—
54 Chickweed common	—
38 Convolvulus large white	—
39 —— field	—
102 Cinquefoil common	—
167 Crowfoot round-rooted	—
109 —— upright meadow	—
108 —— pale-leav'd	—
111 —— wood	—
112 —— celery leav'd	—
189 Cuckow-pint	—
177 Colts-foot	—
90 Campion red	—
28 Cleavers common	—
92 Cockle	—
190 Carex pendulous	—
158 Claver	—
155 Clover Dutch	—
192 Cats-tail broad-leav'd	—
193 —— narrow-leav'd	—
175 Daify common	—
133 Draba vernal	—
116 Dead-Nettle purple	—
118 —— white	—
16 Dandelion common	—
66 Dock curl'd	—
62 —— sharp pointed	—
61 —— broad-leav'd	—
63 —— narrow-leav'd	—
31 Devil's-bit	—
127 Eye-bright red	—
173 Erigeron purple	—
9 Enchanter's Nighshade common	—
55 Elder dwarf	—
56 Flax purging	—
79 Flowering Ruff	—
48 Fools-parley	—
129 Fluellin sharp pointed	—
131 —— round-leav'd	—
132 Foxglove purple	—
18 Feicue grafs flore	—
147 Fumitory common	—
22 Foxtail-grafs field	—
57 Fritillary common	—
195 Frog-bit	—

70	cimera	-	-	-	2	11	Flag yellow
98	Laphriae Peplus	-	-	-	1	178	Fleabane common
99	Heliocopticia	-	-	-	1	179	— small
12	Euphrasia Odontites	-	-	-	1	174	Goutwrelf common
135	Erythrum Allaria	-	-	-	2	83	Golden Saxifrage common
149	Ervum hirtutum	-	-	-	1	122	Ground-Ivy
150	tetraspermum	-	-	-	1	50	Goosefoot white
173	Erigeron acre	-	-	-	1	51	— purple-jointed
	Festuca fluitans	-	-	-	1	53	Good King Henry
57	Fr tillaria Meleagris	-	-	-	3	197	Harts-tongue
101	Fragaria sterilis	-	-	-	3	47	Hemlock
147	Fumaria officinalis	-	-	-	2	69	Heath cross-leav'd
28	Galiun Aparine	-	-	-	2	70	— fine-leav'd
104	Gium urbanum	-	-	-	2	35	Hottonia water
122	Glechoma hederacea	-	-	-	2	209	Hypnum proliferous
141	Geranum cicutarium	-	-	-	1	209	— filky
142	rol-terianum	-	-	-	1	210	— meadow
143	molle	-	-	-	2	42	Honey-suckle common
144	PYreniacum	-	-	-	3	117	Henbit
35	Hottonia palustris	-	-	-	1	58	Hyacinth English
43	Hedera Helix	-	-	-	1	168	Hawkweed long rooted
58	Hyacinthu non scriptus	-	-	-	2	169	— small flowered
160	Hypericum pulchrum	-	-	-	1	215	Ilyndum ear-picker
161	perforatum	-	-	-	1	100	Housetleek
162	hirtutum	-	-	-	3	13	Hair-grafs early
163	humifusum	-	-	-	3	170	Hemp-Agrimony Water
164	— Audiostemum	-	-	-	3	126	Hooded willow-herb common
168	Hypocheirus radicata	-	-	-	3	43	Ivy
169	— glabra	-	-	-	3	70	Knot-grafs common
175	Hydrocharis Morus Ranunc.	-	-	-	3	139	Ladies-smock common
268	Hypnum proliferum	-	-	-	1	138	— bitter
209	sericeum	-	-	-	2	97	Loosestrife purple-spiked
210	purum	-	-	-	3	96	Mousleaf-chickweed marsh
217	Hydnnum aurantiacum	-	-	-	3	93	— least
11	Iris Pseudacorus	-	-	-	3	95	— common
59	Juncus campestris	-	-	-	2	94	— broad-leav'd
78	Inula dysenterica	-	-	-	3	114	Marigold-Marygold
179	pulicaria	-	-	-	3	78	Muscatal tuberosus
8	Lycopus europaeus	-	-	-	3	157	Medick hop
42	Lonicera Periclymenum	-	-	-	3	15	Meadow-grafs hard
45	Lysimachia Nummularia	-	-	-	3	10	— smooth-stalk'd
56	Liatum catharticum	-	-	-	1	17	— rough-stalk'd
90	Lycchnis d' nice	-	-	-	2	194	Mercury Dogs
91	— Flos cuculi	-	-	-	1	115	Mallow com-mon
97	Lythrum Salicaria	-	-	-	3	146	— round-leav'd
116	Lamium purpureum	-	-	-	3	213	Mushroom Egg
117	— amplexicaule	-	-	-	2	212	— pucker'd
118	— album	-	-	-	2	214	— lamy
156	Lotus corniculatus	-	-	-	2	215	— plaited
159	Lathys pratensis	-	-	-	3	216	— oyster
165	Lactuca Ta. axacum	-	-	-	1	45	Moneywort
166	Lipista communis	-	-	-	1	44	Mousleaf-scorpion-grafs
25	Montia fontana	-	-	-	3	218	Morrell stinkng
44	Myosotis scorpioides	-	-	-	3	166	Nipplewort
45	Malva sylvestris	-	-	-	2	40	Nightshade woody
146	— rotundifolia	-	-	-	3	41	— garden
57	Medicago Lupulina	-	-	-	2	124	Nettle hedge
158	— arabica	-	-	-	3	185	Orchis Bee
194	Mercurialis perennis	-	-	-	2	187	— early spotted
69	Oxalis Acetosella	-	-	-	2	188	— meadow
48	Orobos tuberosus	-	-	-	1	165	Orach spear-leav'd
86	Ophrys apifera	-	-	-	1	38	Orpine
88	— ovata	-	-	-	3	23	Oat-grafs yellow
88	Orchis maculata	-	-	-	2	24	— tall
88	Morio	-	-	-	3	172	Oxtongue
199	Oimumunda spicant	-	-	-	2	36	Pimpernel common
14	Poa annua	-	-	-	1	37	— bog
15	— rigidia	-	-	-	2	32	— bastard
16	pratensis	-	-	-	2	91	Pink meadow
17	trivialis	-	-	-	2	148	Pea' wood
29	Plantago lanceolata	-	-	-	2	14	Po common dwarf
30	— major	-	-	-	2	72	Pseficaria spotted leav'd
162	Potentilla reptans	-	-	-	1	73	— pale flowered
103	Anferina	-	-	-	3	74	— spotted stalk'd
191	Poterium Sanguisorba	-	-	-	2	75	— biting
198	Polygonum vulgare	-	-	-	1	77	— final creeping
71	Polygonum Biflotta	-	-	-	1	108	Polypody common
72	— Persicaria	-	-	-	1	183	Pacific wild
73	penfylanicum	-	-	-	1	34	Pcarlwort upright
74	var. caul: macul:	-	-	-	1	33	— procumbent
75	Hydropiper	-	-	-	1	126	Pheasant's-eye
76	aviculariae	-	-	-	1	136	Podded Moatear
77	nitens	-	-	-	1	110	Pilewort
1	Polytrichum subrotundum	-	-	-	2	29	Plantain narrow-leav'd
218	Phallus impudicus	-	-	-	3	30	— common
105	Papaver Rhoeas	-	-	-	3	211	Polytrichum dwarf
12	Picris echioptera	-	-	-	3	105	Poppy smooth-round-headed
60	Rumex crispus	-	-	-	1	46	Periwinkle small

1	obtusifolium	-	-	-	3	59	Rush hairy field	-	-	-	2
62	acutus	-	-	-	3	137	Rocket flinking	-	-	-	3
63	maritimus	-	-	-	3	140	— water	-	-	-	3
10	Ranunculus bulbosus	-	-	-	1	98	Spurge small garden	-	-	-	1
108	hirsutus	-	-	-	2	99	— sun	-	-	-	1
1-9	acris	-	-	-	1	160	St. John's-wort small upright	-	-	-	1
10	Picaria	-	-	-	2	161	— common	-	-	-	1
111	auricornis	-	-	-	2	162	hairy	-	-	-	3
112	ceratæs	-	-	-	2	163	— trailing	-	-	-	3
31	Scabiosa scabiosæ	-	-	-	3	49	Scandix rough-leaved	-	-	-	1
33	Sagina procumbens	-	-	-	3	80	Saxifrage white	-	-	-	1
34	erecta	-	-	-	2	81	— red-leav'd	-	-	-	2
40	Solanum Dulcamara	-	-	-	1	85	Stonecrop white-flowered	-	-	-	1
41	nigrum	-	-	-	2	86	— common yellow	-	-	-	1
49	Scandix Anthracites	-	-	-	1	87	— thick-leav'd	-	-	-	3
55	Sambucus Ebulus	-	-	-	3	134	Shepherd's-purse	-	-	-	1
80	Saxifraga angulata	-	-	-	1	1	Speedwell procumbent garden	-	-	-	1
81	tidastylites	-	-	-	2	2	— germander-leav'd	-	-	-	1
84	Stellaria Holostea	-	-	-	2	3	— smooth-leav'd	-	-	-	1
8	Saponaria officinalis	-	-	-	2	4	— ivy-leav'd	-	-	-	2
85	Sedum album	-	-	-	2	5	— wall	-	-	-	2
86	acre	-	-	-	1	7	— male	-	-	-	3
87	diphyllum	-	-	-	3	167	Sow-thistle common	-	-	-	3
88	Telkophium	-	-	-	3	199	Spleenwort rough	-	-	-	2
100	Sempervivum tectorum	-	-	-	3	135	cæcus-lone	-	-	-	2
124	Stachys sylvatica	-	-	-	3	83	Stitchwort greater	-	-	-	2
125	palustris	-	-	-	3	82	Stropewort	-	-	-	2
126	Scutellaria galericulata	-	-	-	3	101	Strawberry barren	-	-	-	2
129	Sibirionium lychnis	-	-	-	3	102	Silver-weed	-	-	-	3
16	onobrychis gracilis	-	-	-	2	149	Tine-tare rough-podded	-	-	-	3
174	Succisa vulgaris	-	-	-	1	150	— smooth podded	-	-	-	1
119	Thymus Acinos	-	-	-	1	26	Teafle small	-	-	-	1
120	Serpillum	-	-	-	2	27	— wild	-	-	-	3
134	lespisi Buria paetoris	-	-	-	1	130	Toadflax common yellow	-	-	-	1
151	Trifolium ornithopodioides	-	-	-	2	119	Thyme Basil	-	-	-	1
152	fulberrimum	-	-	-	2	120	— wild	-	-	-	2
153	fragiferum	-	-	-	2	152	Trefoil subterraneous	-	-	-	2
154	agratum	-	-	-	3	151	birds-foot true	-	-	-	2
155	repens	-	-	-	3	153	Strawberry	-	-	-	2
1	Tuflago Parasites	-	-	-	2	154	lop	-	-	-	3
17	Farfara	-	-	-	2	186	Twayblade	-	-	-	3
192	Pypha major	-	-	-	3	171	Thistle milk	-	-	-	3
193	minor	-	-	-	3	164	Tutian	-	-	-	3
1	Veronica agrestis	-	-	-	1	10	Vernal-grass sweet-scented	-	-	-	3
2	chamaedrys	-	-	-	1	115	Vervain	-	-	-	1
3	ferryllifolia	-	-	-	1	180	Violet sweet-scented	-	-	-	1
4	hederifolia	-	-	-	2	181	— hairy	-	-	-	1
5	arvensis	-	-	-	2	152	Dogs	-	-	-	1
6	Becabunga	-	-	-	2	184	Bog	-	-	-	3
7	officinalis	-	-	-	1	159	Vetchling yellow	-	-	-	3
49	Vicia minor	-	-	-	3	89	Wood forel	-	-	-	2
115	Veiburna officinalis	-	-	-	1	64	Willow-herb large-flowered	-	-	-	2
180	Viola odorata	-	-	-	1	65	— hoary	-	-	-	2
181	Lirpa	-	-	-	1	66	square-stalk'd	-	-	-	2
182	canina	-	-	-	2	67	rosette	-	-	-	2
183	tricolor	-	-	-	1	68	wood	-	-	-	3
184	palustris	-	-	-	3	8	Water-horehound	-	-	-	3

General INDEX to the Plants of the First, Second, and Third *Fasciculi*,
as arranged according to the System of LINNÆUS.

Plate

DIANDRIA MONOGYNA.

- 1 Veronica agrestis
- 2 Chamaedrys
- 3 feryllifolia
- 4 hederifolia
- 5 arvensis
- 6 Becabunga
- 7 officinalis
- 8 Lycopus europæus
- 9 Circæa lutetiana

Plate

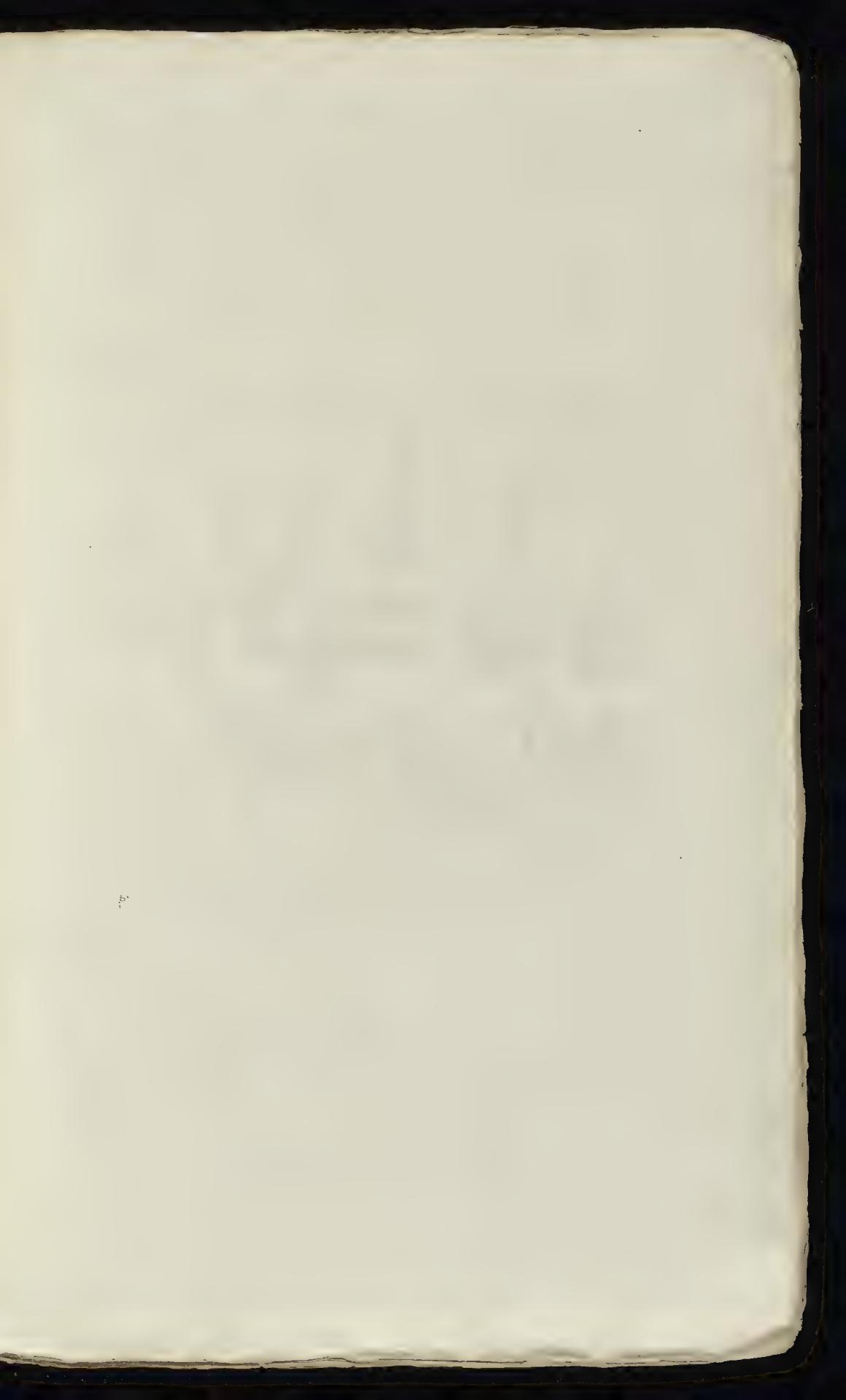
DIANDRIA DIGYNA.

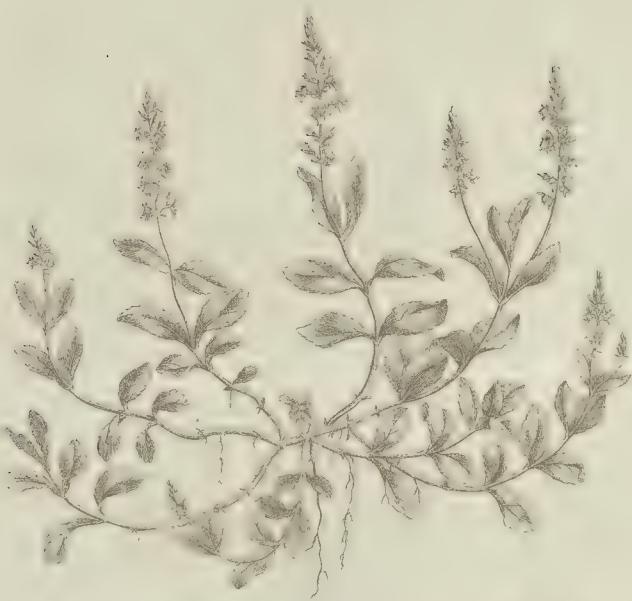
- 10 Anthoxanthum odoratum
- 11 Iris Pseudacorus
- 12 Aira aquatica
- 13 præcox

Plate

- 14 Poa annua
- 15 — rigidæ
- 16 — pratensis
- 17 — trivialis
- 18 Festuca fluitans
- 19 Bromus mollis
- 20 — sterilis
- 21 — hirsutus
- 22 Alopecurus myosuroides
- 23 Avena flavescens
- 24 Avena elatior

Plate		Plate
	TRIANDRIA TRIGYNYIA.	
25	Montia fontana	88 —— Telephium
	TETRANDRIA MONOGYNYA.	89 Oxalis Acetosella
26	Diplocas pilosus	90 Lychnis dioica
27	—— sylvestris	91 —— Flos cueli
28	Galium Aparine	92 Agrostemma Githago
29	Plantago lanceolata	93 Cerasitum semidecandrium
30	—— major	94 —— viscosum
31	Scabiosa Siccifolia	95 —— vulgatum
32	Centunculus minimus	96 —— aquaticum
	TETRANDRIA TETRAGYNYIA.	DODECANDRIA MONOGYNYA.
33	Sagina procumbens	97 Lythrum Salicaria
34	—— erecta	DODECANDRIA TRIGYNYIA.
	PENTANDRIA MONOGYNYA.	98 Euphorbia peplus
35	Hottonia palustris	99 —— Helioscopia
36	Anagallis arvensis	DODECANDRIA DODECAGYNYA.
37	—— tenella	100 Semperivium tectorum
38	Convolvulus sepium	ICOSANDRIA POLYGYNYA.
39	—— arvensis	101 Fragaria ananassa
40	Solanum Dulcamara	102 Potentilla reptans
41	—— nigrum	103 —— Anserina
42	Lonicera Periclymenum	104 Geum urbanum
43	Hedera Helix	POLYANDRIA MONOGYNYA.
44	Mycotis scorpioides palust.	105 Papaver Rhoeas
45	Lytmachia Nummularia	POLYANDRIA POLYGYNYA.
46	Vinca minor	106 Adonis autumnalis
	PENTANDRIA DIGYNYA.	107 Ranunculus bulbosus
47	Conium maculatum	108 —— hirsutus
48	Aethusa Cynapium	109 —— acris
49	Scandix Anthriscus	110 —— Ficaria
50	Chenopodium album	111 —— auricomus
51	—— viride	112 —— fischeri
52	—— polystpermum	113 Anemone nemorosa
53	Bonus Henricus	114 Caltha palustris
	PENTANDRIA TRIGYNYIA.	DIDYNAME GYMNOSPERMIA.
54	Althaea media	115 Verbena officinalis
55	Sambucus Ebulus	116 Lamium purpureum
	PENTANDRIA PENTAGYNYA.	117 —— amplexicaule
56	Linum catharticum	118 —— album
	HEXANDRIA MONOGYNYA.	119 Thymus Acinos
57	Fritillaria Meleagris	120 —— Serpyllum
58	Hyacinthus nonscriptus	121 Ajuga reptans
59	Juncus campestris	122 Glechoma hederaea
	HEXANDRIA TRIGYNYIA.	123 Betonica officinalis
60	Rumex crispus	124 Stachys sylvatica
61	—— obtusifolium	125 —— palustris
62	—— acutus	126 Scutellaria galericulata
63	—— maritimus	DIDYNAME ANGIOSPERMIA.
	OCTANDRIA MONOGYNYA.	127 Euphrasia Odontites
64	Epilobium hirsutum	128 Antirrhinum Cymbalaria
65	—— villosum	129 —— Elatine
66	—— tetragonum	130 —— Linaria
67	—— angustifolium	131 —— spurium
68	—— montanum	132 Digitalis purpurea
69	Erica tetralix	TETRADYNAMIA SILICULOSA.
70	—— cinerea	133 Draba verna
	OCTANDRIA DIGYNYA.	134 Thlaspi Bursa pastoris
71	Polygonum Bistorta	TETRADYNAMIA SILIQYOSA.
72	—— Persicaria	135 Erythrum Alliaria
73	—— pensylvanicum	136 Arabis thaliana
74	—— var. caule maculato	137 Brassica muralis
75	Hydropiper	138 Cardamine amara
76	—— aviculare	139 —— pratensis
77	—— minus	140 Sisymbrium sylvestre
	OCTANDRIA TETRAGYNYIA.	MONADELPHIA DECANDRIA.
78	Adoxa Moschatellina	141 Geranium cicutarium
	ENNEANDRIA HEXAGYNYA.	142 —— robertianum
79	Butomus umbellatus	143 —— molle
	DECANDRIA DIGYNYA.	144 —— pyrenaicum
80	Saxifraga granulata	MONADELPHIA POLYANDRIA.
81	—— tridactylites	145 Malva sylvestris
82	Saponaria officinalis	146 —— rotundifolia
83	Chrysosplenium oppositifolium	DIADELPHIA HEXANDRIA.
	DECANDRIA TRIGYNYA.	147 Fumaria officinalis
84	Stellaria Holostea	DIADELPHIA DECANDRIA.
	DECANDRIA PENTAGYNYA.	148 Orobus tuberosus
85	Sedum album	149 Eruvum hirsutum
86	—— acre	150 —— tetraspermum
87	—— dalyphyllum	151 Trifolium ornithopodioides
		152 —— subterraneum
		153 —— fragiferum
		154 —— agrarium
		155 —— repens
		156 Lotus corniculatus
		157 Medicago lupulina
		158 —— arabica
		159 Lathyrus pratensis
		POLYADELPHIA POLYANDRIA.
		160 Hypericum pulchrum
		161 —— perforatum
		162 —— hirsutum
		163 —— humifusum
		164 —— Androscium
		SYNGENESIA POLYGAMIA AEQUALIS.
		165 Leontodon Taraxacum
		166 Lapana communis
		167 Sonchus oleraceus
		168 Hypochaeris radicata
		169 —— glabra
		170 Bidens cernua
		171 Carduus mariannus
		172 Picris echioides
		SYNGENESIA POLYGAMIA SUPERFLUA.
		173 Erigeron acre
		174 Senecio vulgaris
		175 Bellis perennis
		176 Tussilago Petasites
		177 —— Farfara
		178 Inula dysenterica
		179 —— pulicaria
		SYNGENESIA MONOGAMIA.
		180 Viola odorata
		181 —— hirta
		182 —— canina
		183 —— tricolor
		184 —— palustris
		GYNANDRIA DIANDRIA.
		185 Ophrys apifera
		186 —— ovata
		187 Orchis mauleana
		188 —— Morio
		GYNANDRIA POLYANDRIA.
		189 Arum maculatum
		MONOECIA TRIANDRIA.
		190 Carex pendula
		MONOECIA POLYANDRIA.
		191 Poterium Sanguisorba
		192 Typha latifolia
		193 —— angustifolia
		DIOECIA ENNEANDRIA.
		194 Mercurialis perennis
		DIOECIA MONADELPHIA.
		195 Hydrocharis Morsus Ranae
		POLYGAMIA MONOECIA.
		196 Atriplex hastata
		CRYPTOGAMIA FILICES.
		197 Asplenium Scolopendrium
		198 Polypodium vulgare
		199 Osmunda cinnamomea
		CRYPTOGAMIA MUSCI.
		200 Bryum scoparium
		201 —— undulatum
		202 —— hornum
		203 —— truncatum
		204 —— viridulum
		205 —— subulatum
		206 Bryum argenteum
		207 —— cespitosum
		208 Hypnum proliferum
		209 —— sericeum
		210 —— purum
		211 Polytrichum subrotundum
		CRYPTOGAMIA FUNGI.
		212 Agaricus ovatus
		213 —— fimetarius
		214 —— glutinosus
		215 —— plicatilis
		216 —— ostreatus
		217 Hydnellum auriscalpium
		218 Phallus impudicus





Salvia officinalis.

VERONICA OFFICINALIS. MALE SPEEDWELL.

VERONICA Lin. Gen. Pl. DIANDRIA MONOGYNIA

Cv. Limbo 4. partito, laciniis insimis angustiore. *Cayela* 'foliularia'

Raii Syn. Gen. 18. HERBÆ FRUCTU SICCO SINGULARI FIORE, M. NOFF CALO.

VERONICA officinalis spicis lateribus pedunculatis, foliis oppositis, caule procumbens Lin. S. 1. gen. p. 56 Sp. Pl. 14. Fl. Suec. n. 12.

VERONICA caule decumbente, foliis scabris, petiolatis, ovatis, ex alis racemoso. Heller H. B. n. 5. o.

VERONICA officinalis spicis lateribus pedunculatis, foliis oppositis, caule procumbens Lin. S. 1. gen. p. 56 Sp. Pl. 14. Fl. Suec. n. 12.

VERONICA mas f. pinifolia vulgatissima Bub. pin. 246.

VERONICA vera et major. Ger. emac. 626.

VERONICA mas vulgaris supina. Parkins. 550. Raii. Syn. p. 281. The male Speedwell or Fluellin.

Hudson. Fl. Angl. ed. 2. p. 4.

Lightfoot. Fl. Scot. p. 27.

Oeder. Fl. Dan. t. 248.

RADIX perennis, fibrofa.

CAULES p. lind. s. l. u. spithamea, teretes, hirsuti, rigidi, repentes.

FOLIA opposta, petiolata, presertim inferiora, hirsuta, serrata, pollicaria, inferiora latiangularia, superiora ovali-oblonga, obtusa, paulo majora, subfusilla.

RACEMI solitarii, five gemini, in summitate laterales, axillares ex foliis, pedunculati, erecti, nudi, pubescentes, floribus sparsis, brevius pedicellatis.

BRACTEÆ ad flores, foliariae, lineares, obtuse, pubescentes, longitudine vix calycis, erectæ.

CALYX: PERANTHUM monophyllum, quadripartitum, hirsutum, pilis apice glanduligeris, laciniis ovato lanceolatis subæqualibus. fig. 1.

COROLLA monopetalata, rotata; TUBUS brevis, albidus, Limbus quadripartitus, dilute violaceus, venis saturatoribus pictus, laciniis ovatis, obtusis, inæqualibus; tribus majoribus subæqualibus, unica duplo angustior. fig. 2.

STAMINA: FILAMENTA duo, albida, tubo inserta, corollâ longiora; ANTHÈRE cordata, coruscantes; POLLEN album. fig. 3.

PISTILLUM: GERMEN subovatum, obtusum, compressum, vicosum, utriusque sulcatum, basi glandulâ cinctum; STYLUS filiformis, versus apicem paululum incrassatus, violaceus; STIGMA truncatum. fig. 4.

PERICARPIUM: Capsula cordata, compressa, calyx paulo longior. fig. 5.

SEMINA plurima, parva, compressa, pallide fusca. fig. 6.

ON dry mountainous situations, as on Hampstead Heath, and about Charlton Wood, we find this Species of *Veronica* in great abundance, producing flowers from June to August or later.

Its principal distinguishing character is its creeping stalk, which in some situations is more strictly so than in others, I have observed it on some dry heaths, creeping close to the earth, and in other places scarcely procumbent, but it always has this character in a greater or less degree.

In the colour of its blossoms it varies much, they being in some situations almost blue, in others reddish, and in others white; and it is said to have been found with double flowers.

When it meets with a luxuriant soil, its stalks will extend a foot or two, and its leaves equal those of the *Veronica Chamaedrys* in size.

Many writers on the Materia Medica, have been lavish of their encomiums on its virtues. RUTTY thus speaks of it.

" It has a faint smell which is not disagreeable, to the taste it is bitterish and somewhat astringent; the extract of it was also bitter and astringent, but that prepared with spirit of wine stronger than that prepared with water, and both somewhat acid, the bitterness resides most in the resinous part.

" An infusion of it on the addition of Vitriol of Iron became of a greenish brown colour, and with ALSTON black; blue paper it made red.

" In its external use the cleansing and astringent powers which it possesses, place it among the principal vulneraries, bad ulcers it cleanses, and disposes them to heal; I have myself been witness of its efficacy in this respect, applied to an inveterate cancerous ulcer in the form of a cataplasm, from discharging a thin ichor, it produced a laudable pus.

" It has been found serviceable also in the Itch, and other cutaneous diseases, made into a gargle with the addition of Honey of Rose, it cures the Thrush, and other ulcers of the mouth and throat.

" Taken inwardly it relieves the asthmatic, attenuating and promoting the expectoration of viscid phlegm, and drank as Tea, it also proves serviceable in wounds or ulcers of the Lungs, &c. &c.

These good effects related with so much confidence by the Dr. we have translated, and present to our readers, should they not be exaggerated the *Veronica officinalis* has very unmerited falso to divide.

ROOT perennial and fibrous.

STALKS from three to seven inches in length, round, hirsute, stiffish, and creeping.

LEAVES opposite, standing on footstalks, especially the lower ones, somewhat hairy, serrated, about an inch in length, the lower ones narrowed at the base, the upper ones of an oblong or oval shape, obtuse, somewhat larger than the lower ones, and nearly sterile.

FLOWER-BRANCHES single, or growing in pairs, from the side near the top of the stalk, out of the axil of the leaves, standing on a foot-flask, upright, or led down, the flowers placed on short foot-stalks without any regular order.

FLORAL-LEAF, one placed singly under each flower, linear, obtuse, downy, scarce the length of the calyx, and upright.

CALYX: a PERANTHUM of one leaf, deeply divided into four segments, beset with rough hairs which are glandular at the top, the segments oval pointed, and nearly equal. fig. 1.

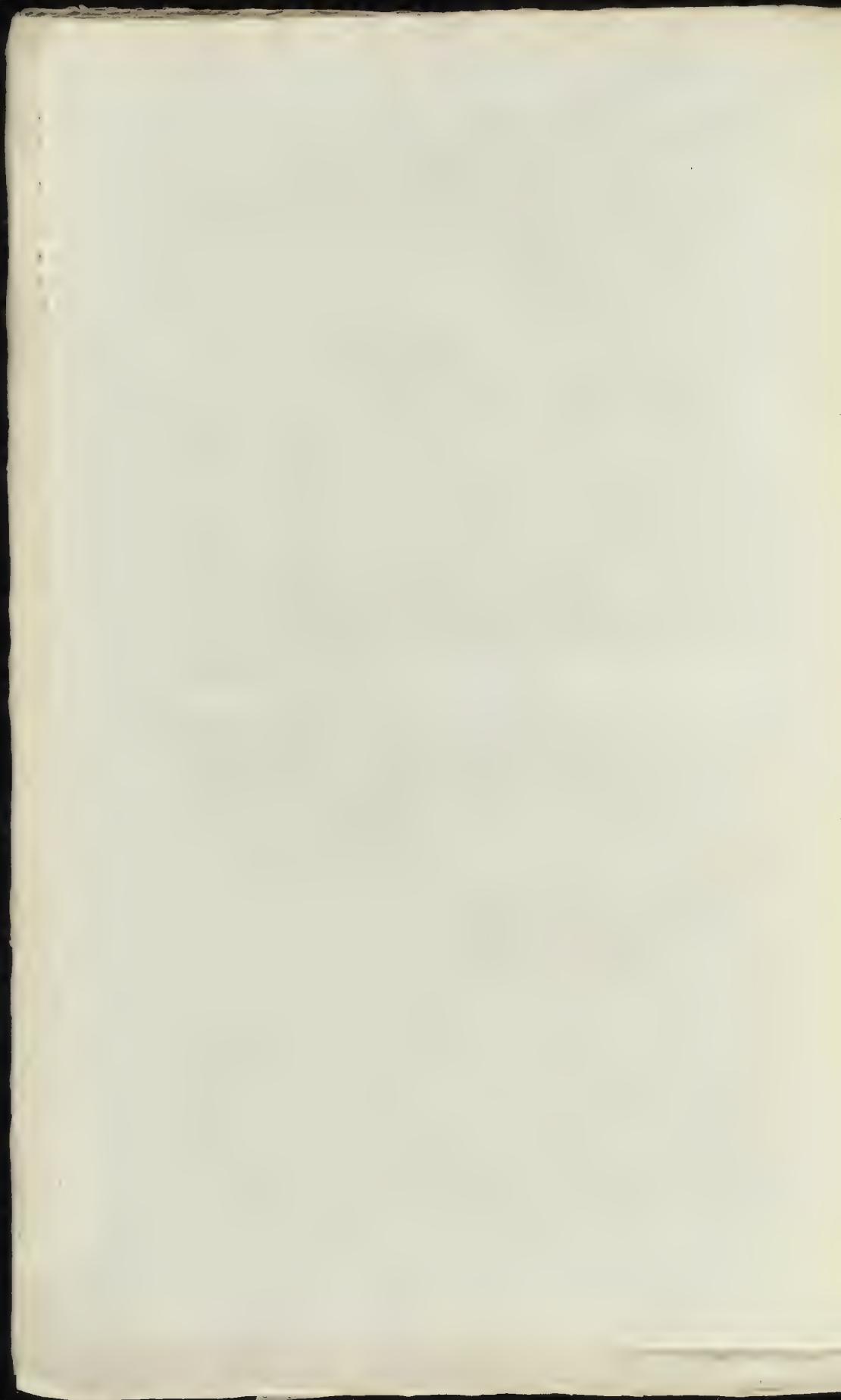
COROLLA monopetalous and wheel-shaped; the Tube short and whitish; the Limb divided into four segments, of a faint violet colour, printed with more deeply coloured veins, the segments ovate, obtuse and unequal; the three largest nearly equal; the single one twice as narrow as the others. fig. 2.

STAMINA: two FILAMENTS, of a whitish colour, inserted into the tube, and longer than the corolla; ANTHÈRE heart shaped, of a bluish colour; POLLEN white. fig. 3.

PISTILLUM: GERMEN somewhat ovate, obtuse, flatt'ned, clammy, grooved on each side, surrounded at its base by a gland; STYLE thread-shaped, a little thickened towards the top, of a violet colour; STIGMA as if cut off. fig. 4.

SEED-VESSEL: a heart shaped flattened Capsule, a little longer than the calyx. fig. 5.

SEEDS numerous, small, flattened, of a pale brown colour. fig. 6.



Leibniz — *Die Schriften* — *Band 1* — *Philosophie* — *Logik* — *Lehrbuch der Logik*

and *Logik* — *Die Schriften* — *Band 1* — *Philosophie* — *Logik* — *Lehrbuch der Logik*

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LYCOPUS EUROPÆUS. WATER HOREHOUND.

LYCOPUS Lin. Gen. Pl. DIANDRIA MONOGYNA

Cor. 4, fida: lacinia unica emarginata. Staminæ distantia, Semina 4, retusa.

Raii. Syn. Gen. 14. SUFFRUTICES ET HERBÆ VERTICILLATE.

LYCOPUS europaeus foliis sinuato-serratis. Lin. Syst. Vegetab. p. 63. Sp. Pl. p. 39. Fl. Succ. n. 31.

LYCOPUS foliis acute serratis et appendiculatis. Haller Hist. 220.

LYCOPUS europaeus. Scopoli Fl. Carn. n. 29.

LYCOPUS palustris glaber J. R. H. 101.

MARRUBIUM palustre glabrum Baub. p. 236.

MARRUBIUM aquaticum. Ger. emac. 700.

MARRUBIUM aquaticum vulgare. Parkius. 1232. Raii. Syn. p. 236. Water Horehound.

Hudson Fl. Engl. ed. 2.

Lighthfoot Fl. Scot.

RADIX	perennis, repens.	ROOT	perennial and creeping.
CAULIS	pedalis, ad tripedalem; erectus, quadratus, hirsutus, ad basin usque ramulos; Rami oppositi.	STALKS	from one to three feet in height, upright, four corner'd, beset with rough hairs, branched quite to the bottom; Branches opposite.
FOLIA	opposita, ovata, acuta, sessilia, subrugosa, hirsutula, sinuato-serrata.	LEAVES	opposite, ovate, pointed, sessile, somewhat wrinkled, slightly hirsute, sawed at the edge, the incisions deep and somewhat waved.
FLORES	parvi, albi, ad genicula in verticillis densos dispositi.	FLOWERS	small, and white, disposed round the joints in thick whorls.
CALYX	: PERIANTHUM monophyllum, tubulatum, semiunguiscdum, hirsutum, lacinia acuminata. fig. 1.	CALYX	: a PERIANTHUM of one leaf, tubular, and hirsute, slightly divided into five segments, which run out to a fine point. fig. 1.
COROLLA	monopetala, alba, Tuba cylindricus; brevis, Labus quadridens, villosus, lacinia subæqualibus, superiore emarginata, omnibus pauciflora in inferiore rubro punctatis. fig. 2. 3.	COROLLA	monopetalous and white, Tube cylindrical, short, Limb divided into four segments, blunt, spreading, villous within, the segments nearly equal, the uppermost notched, all of them especially the lower one dotted with red, fig. 2. 3.
STAMINA	: FILAMENTA duo, corollæ longiora, primum infixa, denum recta; ANTERÆ parvæ, sublunulatae, albidae. fig. 4.	STAMINA	: two Filaments, longer than the corolla, at first bent in, afterwards straight; ANTERÆ final, somewhat crescent-like and whitish. fig. 4.
PISTILLUM	GERMEN quadratum, substantia glandulosa ad basin cinctum; STYLUS filiformis, rectus, longitudine Staminum; STIGMA bifidum. fig. 5.	PISTILLUM	: GERMEN divided into four parts, surrounded at bottom by a glandular substance; STYLUS filiform, straight, the length of the Stamina; STIGMA bifid. fig. 5.
SEMINA	quatuor, fig. 9. fusca, nitida, oculo quasi illinita, subtriangularia, externe planitcula, linea subcordata in medio impressa, interne medio ad angulum producta, lateribus subinvolutis. fig. 6. externe. fig. 7. interne visum.	SEEDS	four, fig. 9. brown, shining as if anointed with oil, somewhat triangular, externally flattish, with an impressed somewhat heart-shaped line in the middle, internally the middle running out to a point or angle, the sides somewhat rolled in fig. 6. seen externally. fig. 7. internally.

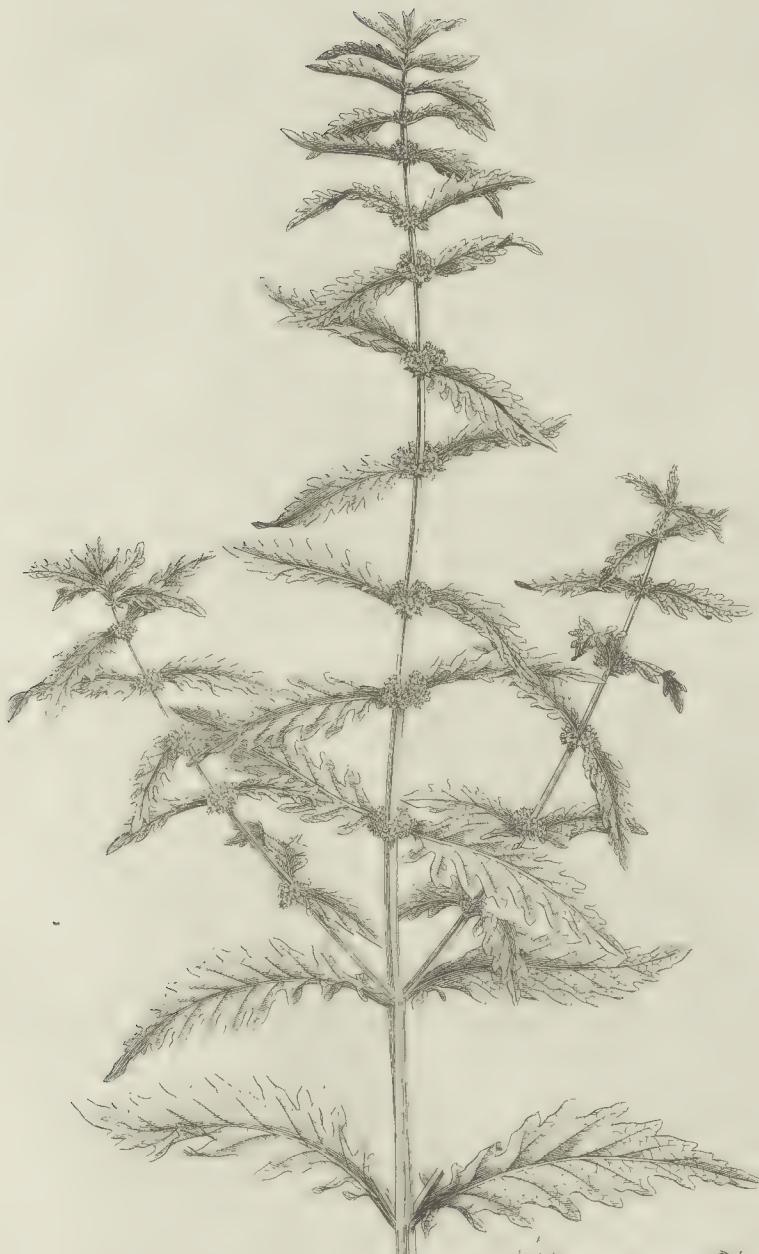
THIS is one of the most common plants one meets with in Meadows, by the sides of rivers, and streams of water, it flowers in August and September.

In its habit it manifests the greatest affinity with the *Herbæ verticillatae* of RAY, but like the genus *Salvia*, differs from them in its fructification.

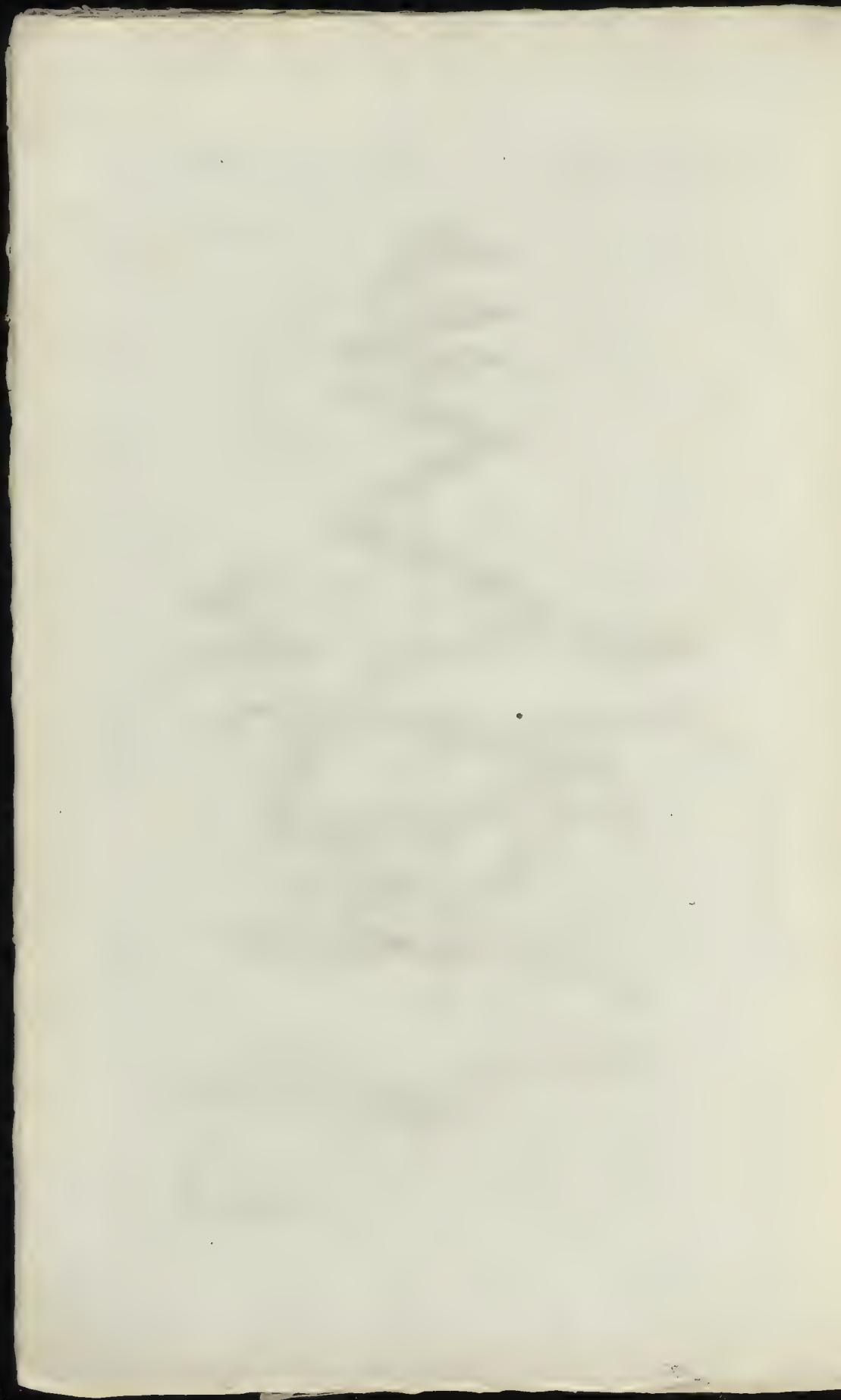
The leaves vary in being more or less hairy, and more or less finely divided.

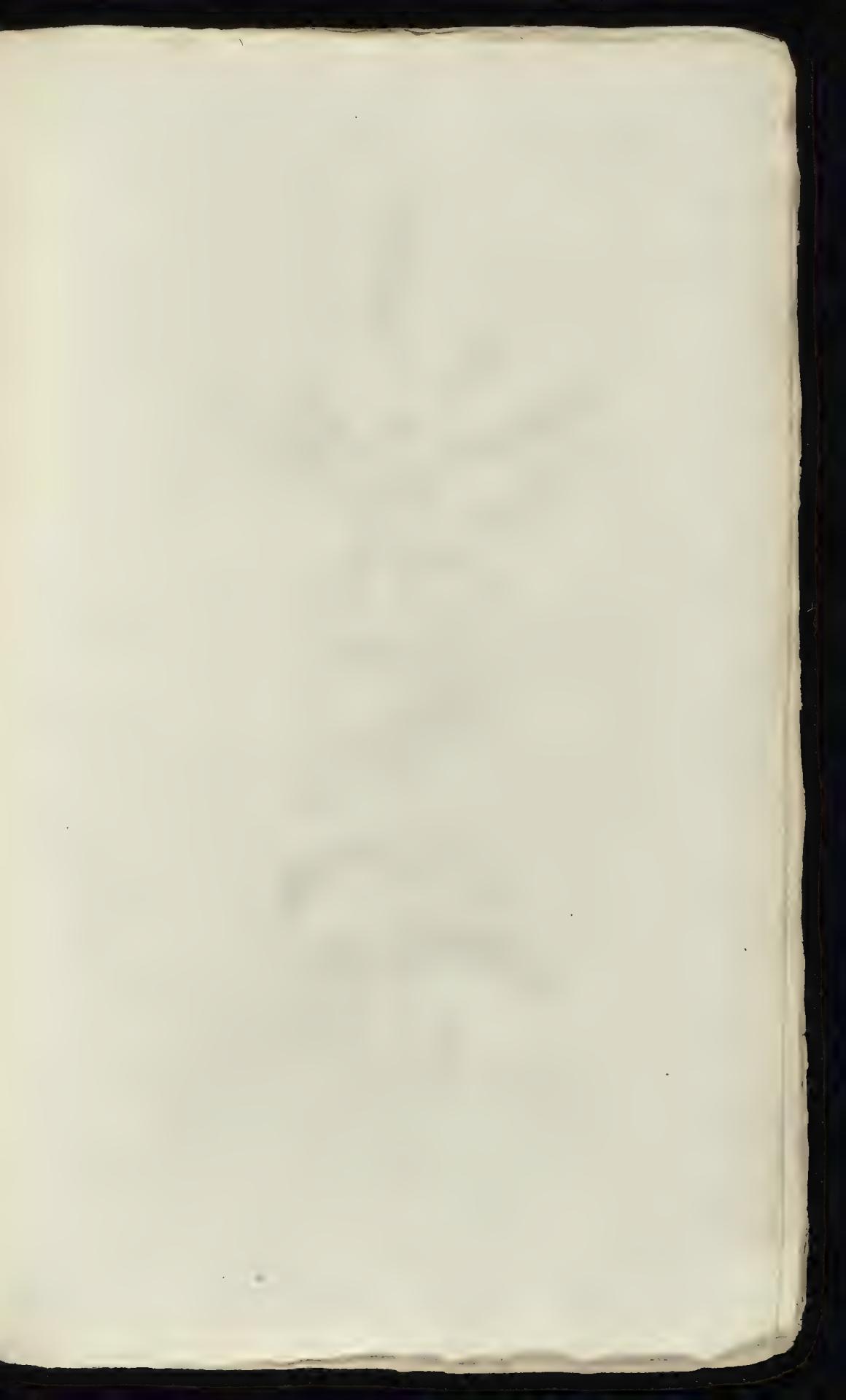
In some Meadows it abounds so much as to be noxious to the farmer; Cattle appear never to touch it; its root being of the creeping kind, renders it difficult of extirpation.

It is said to give a durable stain to whatever it touches, to be used by the French as an assistent ingredient in dyeing black, and by Gypsies in staining their skins. Lin. flor. succ. Haller. hist. belo.



Lycaena europaea.







Curia luteana.

CIRCÆA LUTETIANA. ENCHANTERS NIGHTSHADE.

CIRCÆA Lin. Gen. Pl. DIANDRIA MONOCYNYIA

Cor. dipetala. Cal. diphyllus, superus. Sem. 1. bilocular.

Raii. Syn. Gen. 19. 20. HERBÆ VASCULIFERÆ, FLORE DIPETALO ET TRIPETALO.

CIRCÆA lutetiana, caule erecto, racemis pluribus, foliis ovatis. Lin. Syl. Vegetab. p. 55. Sp. Pl. p. 12.
Pl. Suecic. n. 6.

CIRCÆA foliis subcordatis subferratis. Haller bifi. n. 813.

CIRCÆA lutetiana. Scopoli. Fl. Carn. n. 6.

CIRCÆA lutetiana. Lob. ic. 166. Ger. emac. 351.

CIRCÆA lutetiana major. Par. 351.

SOLANIFOLIA Circæa dicta major. Bauh. pin. 168.

OXYMASTRUM vetriculatum. J. B. 11. 977. Rail. Synops. p. 289. Enchanters Nightshade.

Oeder. Fl. Dan. 1. 256.

Lightfoot Fl. Sol. p. 20.

Hudson. Fl. Ang. p. 10.

RADIX perennis, repens, stolonibus albis.

CAULIS pedalis ad felquipedalem suberctus, teres, levis, geniculis incrassatis purpureo-fulcentibus, ramosus.

RAMI oppositæ, longi; inferne foliæ, supèrie pubescentes.

FOLIA opposita, petiolata, subcordata, acuta, levia, inferne pallidiora, marginatæ.

FLORES parvi, albidi, summitatibz ramiorū rācematim infundentes.

PEDUNCULI alterni, demum deßc.

CALYX: PERIANTHUM diphyllum foliis ovatis, concavis, deflexis, pùrporeo-unculus communis infundibulus. fig. 1. 9.

COROLLA: PETALA duo, obcordata, longitudine calycis, patentia, æqualia, ricta, sessilia. fig. 2.

STAMINA: FILAMENTA duo, cæaria, erecta, alba; ANTHÈRE subrotunda majusculæ, albidae. fig. 3.

PISTILUM: GERMIN inferum, hispid; STYLUS filiformis, longitudine Staminis; STIGMA bifidum, ruberrimum. fig. 4. 8.

PERICARPIUM: CAPSULA turbinatata, compresa, hispida, pilis uncinatibz locularis, bivalvis, a basi ad apicem dehinc fig. 5. 6.

SEMINA duo, oblonga, inferne angustiora. 7.

* ROOT perennial and creeping, its young shoots white.
STALKS from a foot to a foot and half in height, nearly upright, round, smooth, the joints swelled and purplish, branched.

BRANCHES opposite, long, on the lower part leafy, on the upper downy.

LEAVES opposite, standing on foot-stalks, somewhat heart-shaped, pointed, smooth, of a paler green on the under side, the edge toothed.

FLOWERS small, whitish, placed on the tops of the branches in racemis.

FLOWER-STALKS alternate, finely turned downwards.

CALYX: A PERIANTHUM of two leaves, which are ovate, hollow, turned back, of a purple colour, fitting on one common footstalk. fig. 1. 9.

COROLLA: two PETALS inversely heart shaped, the length of the calyx, spreading, equal, flesh-colour'd and scutellæ fig. 2.

STAMINA: two FILAMENTA, very fine, upright, of a white colour; ANTHÈRE roundish, rather large, of a whitish colour. fig. 3.

PISTILUM: GERMIN placed below the calyx, hispid, and grey; STYLE filiform, the length of the Stamina; STIGMA bifid, of a bright red colour. fig. 4. 8.

SEED-VESSEL: a CAPSULE somewhat egg-shaped, but considerably broadest at one end, flattend, hispid, the hairs hooked at the extremity, having two cavities and two valves, and opening from the bottom to the top. fig. 5. 6.

SEEDS two, oblong, narrowst at the bottom. fig. 7.

THE Enchanters Nightshade is a plant b. means uncommon in particular situations, as in shady lanes, in orchards, under hedges, walls, and in wood flowers in July and August; the Botanist will discover many beauties in its fructification, the gardener a difficulty in destroying it, its root being of the creeping kind. Its seeds being arm'd with little hooks as to adhere to ones cloths.

The caterpillar of the *Spinx Elpenor* or *Ent Hawk Moth* which chiefly confines itself to the *Galium palustre* or marsh *Ladies Bedstraw* has sometimes been feeding on this plant, nor is this the only instance of its departure from its usual food, in the Autumn twenty-nine the same species of caterpillar was sent me from the country, the plant on which it was found was the *Arum Dracunculus* or *Dragon*, one very dissimilar in its nature to the *Galium*, I have often had occasion to observe that some caterpillars will perish unless they have their peculiar food, while others will die of any vegetable that preys on itself; who would think that the *Phalena Braticea*, would feed heartily, and be vivified by the leaves of the deadly *Nightshade*, or the roots of the *Onion*? yet I have myself seen an eye witness'th instances.

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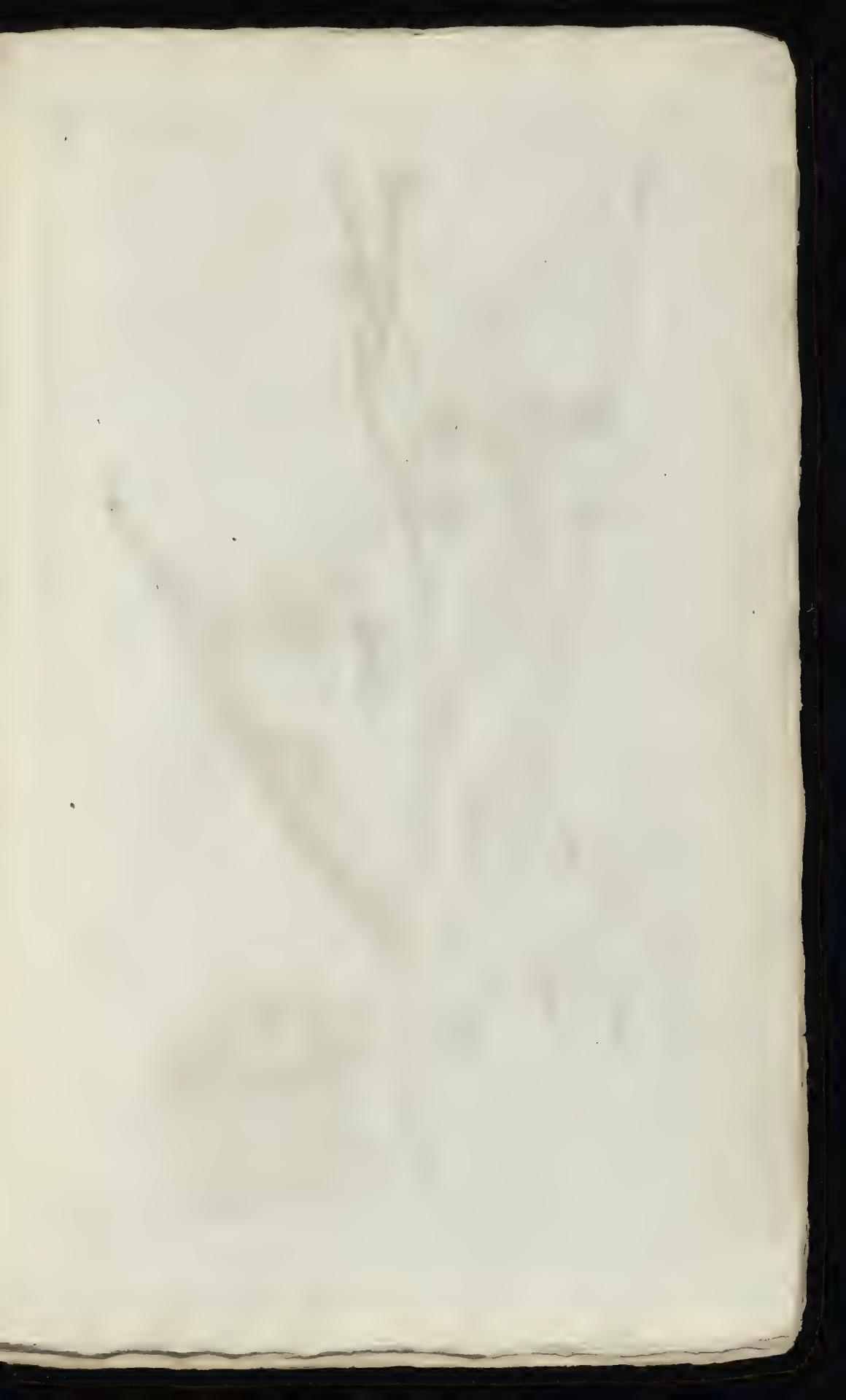
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Iris Pseudacorus.

IRIS PSEUDACORUS. YELLOW IRIS.

IRIS Lin. Gen. Pl. TRIANDRIA MONOGYNA

Cor. Limbo 4^o partito: Petalis alternis reflexis, Stigmata petaliformia.

Raii Syn. Gen. 26. HERBÆ RADICE BULBOSEA PREDITÆ.

IRIS *Pseudacorus* corollis imberibus, petali interioribus stigmata minorebus, foliis emarginatis. Linn.

Syst. Vegetab. p. 79. Sp. Pl. p. 56. M. Spec. n. 37.

IRIS canæ inflexa, foliis eniformibus; petali cretæ, nimbis, reflexis, imberibus. Ital. Hist. n. 1260.

IRIS *Pseudacorus* Scopoli. Fl. C. m. n. 49.

IRIS palustris lutea. Ger. em. 50.

ACORUS adulterinus. Bauh. pin. 74.

ACORUS palustris, sive Picado-iris et Iris lutea palustris. Park 1219. Raii. Syst. p. 174. Yellow water

Flower-de-luce.

Hudgin. Fl. Angl. ed. 2. p. 14. Lightfoot. Fl. Scot. p. 86. Order. F. Dan. t. 40;

RADIX perennis, crassitie pollicis, horizontalis, fornicans, intus rubicundus, spongiosus, superne plurimis fibrillis rigidis obiecta, inferne dimittens radiculos longas, albidas, rugositas.

FOLIA radicalia, bi aut tripedalia, erecta, lata, eniformia, nervo eminente, basi equitantia, caulina breviora, alterna, basi vaginantia.

CAULIS pedalis ad tripedalem, erectus, e geniculo ad geniculum alterne inclinatus, teres, laevis, spongiosus.

FLORES cretæ, speciosi, flavi.

PEDUNCULI axillares, semiteretes, glabri.

CALYX: SPATHA biflora aut triflora, bivalvis, trivalvis aut quadrivalvis secundum numerum florum.

COROLLA sexpartita; PETALA tria exteriora ampla, ovato rotundata, reflexa, lineis rubris seu ex rufo-rubris ad interiore parte, pecta, ad basim unguis biforaminosa, tria interiora primo erecta, cito inflexa, stigmata breviora, oblonga, basi angustata, intus cava. fig. 1. 2.

STAMINA: FILAMENTA tria, subalata, compressa; ANTERÆ oblongæ, lutes, marginibus purpurascensibus, ab incumbe stigmata in arcum depresso, biloculares, locule lineares, inferne dehiscentes, fig. 3.

PISTILLUM: GERMIN inferum, oblongum, trigonum, angulis obtusis fulcatis; STYLUS tenuis, germine brevior; STIGMA maximum, tripartitum, flavum, laciniis oblongis, superne carinatis, inferne concavis apice trifidis, venosis, levigatis, segmento medio brevissimo, infero. fig. 4. 5. 6.

PERICARPIUM: CAPSULA oblonga, angulata, triangularis, trivalvis fig. 7.

STAMINA pl. tria, magna, flavescens, utrinque compressa, fig. 8.

MANY of the plants of this tribe recommend themselves to our notice by the beauty and delicacy of their blossoms, some by their medicinal, and others by their economical uses; the present plant may perhaps put its claim on each of these accounts, and though its flowers may not possess the fragrance so grateful in the *Iris persica*, the magnificence which distinguishes in the *sibirica*, or the variety of colours which glow in the *versicolor*, yet those who have examined its structure must allow it to be at once beautiful, delicate, and singularly curious; the Stigma in particular deserves to be noticed by the Student, being in form and substance more like the petals than the part it really is.

As to its medicinal powers—the root is without smell, viscid, and of a sweetish taste, its infusion and decoction at first very sweet, then highly astringent, presently producing a sense of heat in the throat, which continued with me for more than twelve hours. *Rutty Mat Med.*

An infusion of it became black on the addition of Vitriol of iron. *id.*

In drying it loses much of its acrimony. *id.*

Cut into the form of pease it is useful to destroy the proud flesh in issues, and promotes their discharge *id.*

The juice has been used to promote freezing, but being highly acrimonious of itself, a few drops of it mix'd with milk, has been used to produce that effect in the tooth-ach. *id.*

The juice of the root has also been recommended to be applied to creeping ulcers, and being considered as possessing considerable astringent powers, it has been administered in fluxes but very injudiciously according to some modern experiments made with it, (*vide Edinburg Med. Essays*) by which it was found that eighty drops of this juice repeated every hour or two, proved an excellent purgative where Jalap and Gamboge had in vain been exhibited. On the whole it appears to be a violent medicine, and to be used with great caution. The only account we have of its economical uses is, that an infusion or decoction of it like that of gall and other vegetable astringents is capable with the addition of iron of being converted into ink, or of dying black, to both of which purposes it has long been applied in Scotland and the adjacent Isles. *Sibbald. Lightfoot.*

It is a very common plant in marshy meadows, by the sides of rivers, ponds, &c. and flowers in the beginning of July.

Planted in the garden where the soil is moist, it increases exceedingly both by root and seeds.

ROOT perennial, the thickness of ones thumb, horizontal, externally blackish, reddish with infide, and spongy, the upper part covered with numerous rigid fibres, its lower part sending down many long, whitish, wrinkled, stringy roots.

LEAVES from the root, two or three feet high, upright, broad, sword-shaped, with a prominent midrib, at bottom riding one on another and covered with a glutinous substance, those on the stalk shorter, alternate, forming a sheath at the bottom.

STALKS from one to three feet in height, upright, alternately inclined from joint to joint, round, smooth, and spongy.

FLOWERS upright, showy, of a yellow colour.

FLOWER-SL^ALKS proceeding from the axis of the leaves, round, but flattened on one side and smooth.

CALYX, a SPATHA containing two or three flowers, of two, three, or four valves according to the number of flowers.

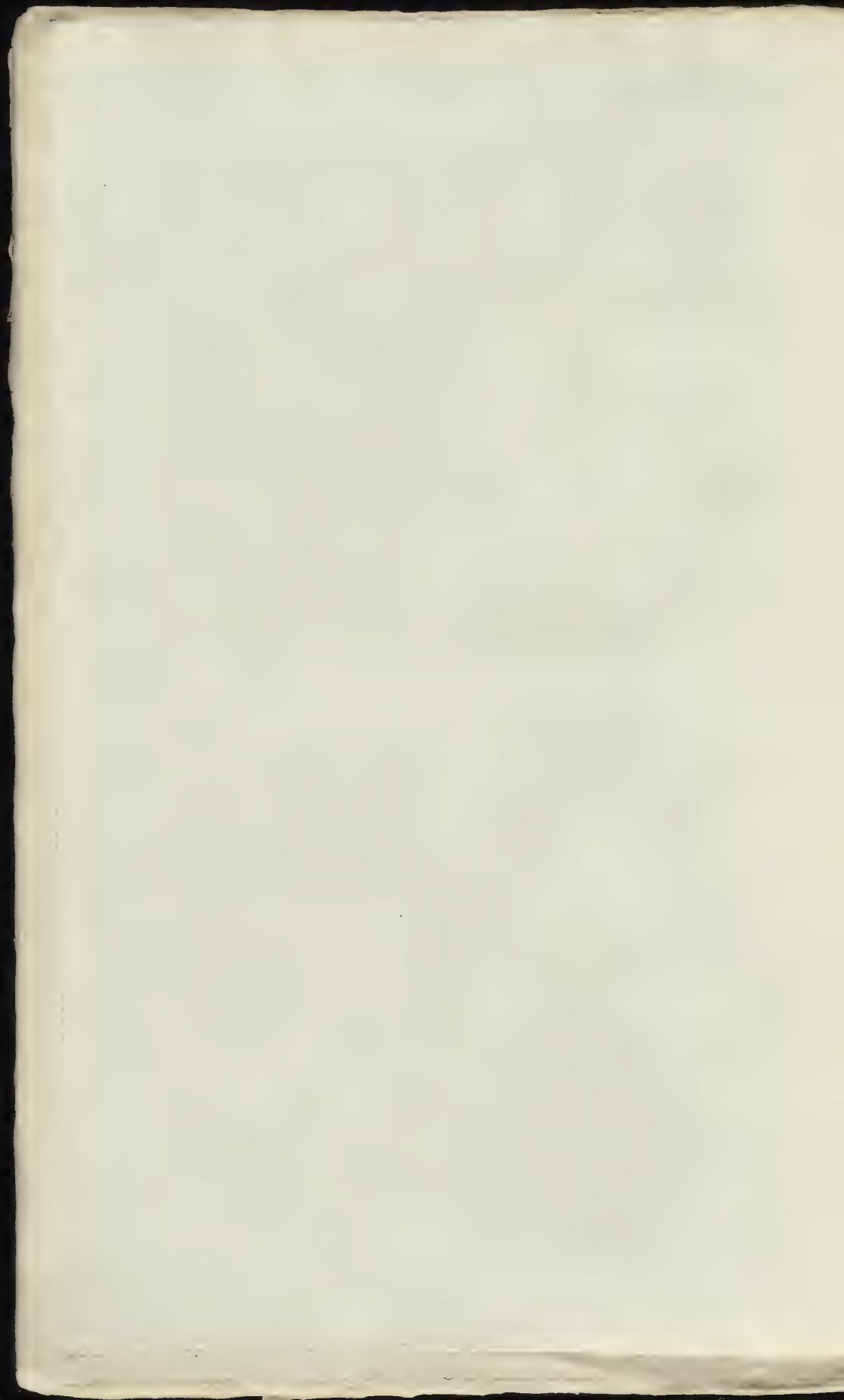
COROLLA deeply divided into six segments: the three outermost segments or PETALS large, of a roundish oval shape, turning back, painted at the base of the broad part with lines of a reddish brown colour, and at the bottom of the claw or naucou put having the appearance of two small holes. fig. 1. 2.

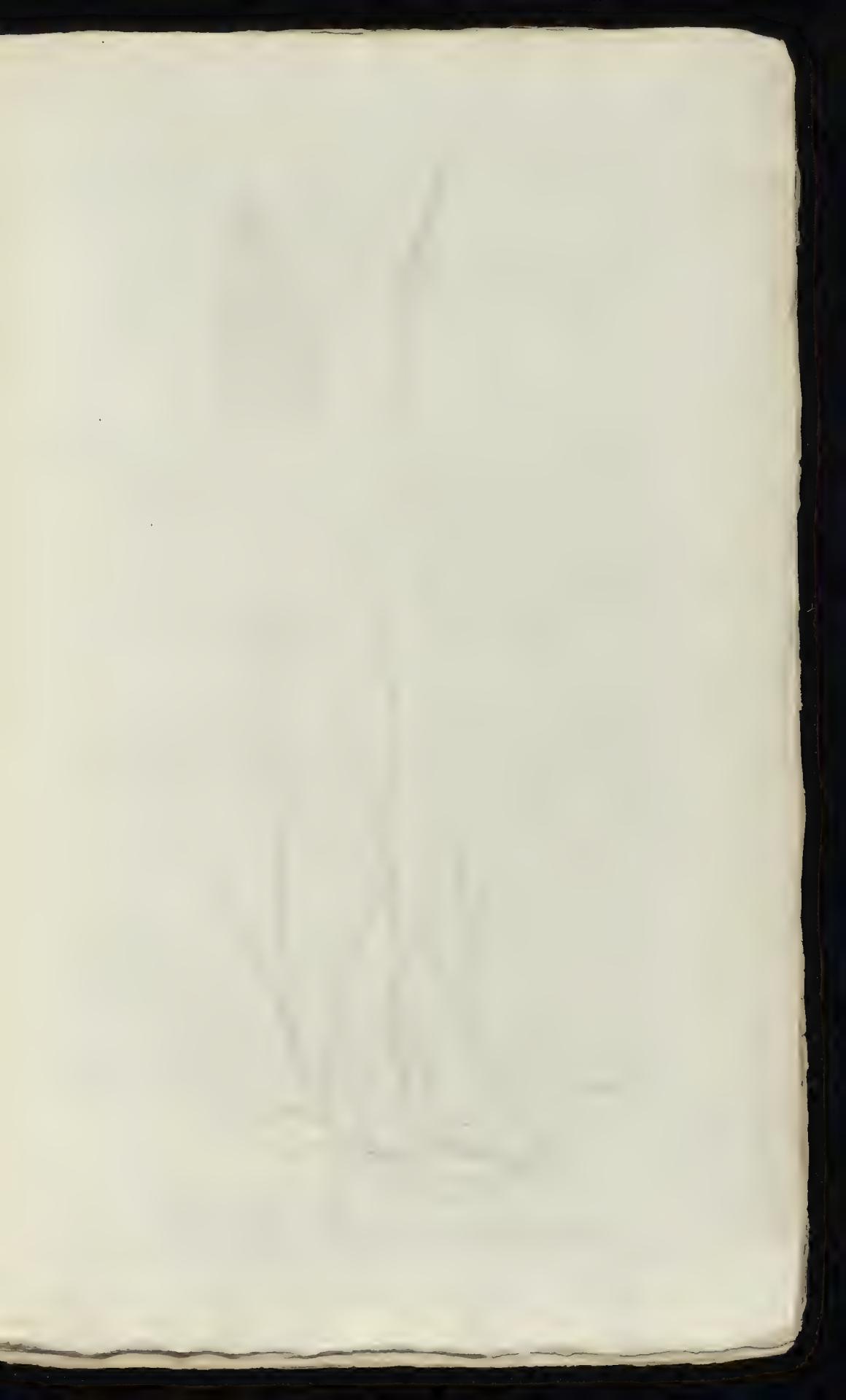
STAMINA: three FILAMENTA flat and tapering; ANTERÆ oblong, yellow, edges purplish, bent down by the stigma pressing on them, having two cavities which are linear and open on the under side. fig. 3.

PISTILLUM: GERMIN placed below the corolla, three cornered, the angles blunt and grooved; STYLE slender, shorter than the stigma; STIGMA very large, deeply divided into three segments, of a yellow colour, the segments oblong, above keel-shaped, below concave, at the top veiny, sawed at the edge and subdivided into three segments of which the middle one is very short and placed underneath. fig. 4. 5. 6.

SEED-VESSEL an oblong, angular CAPSULE, of three cavities and three valves. fig. 7.

SEEDS numerous, large, of a yellowish colour and flattened on both sides. fig. 8.







Carex flava var. flava

AVENA FLAVESCENS. YELLOW OAT GRASS.

AVENA Lin. Gen. Pl. TRIANDRIA DIGYNIA.

Cal. 2-valvis, multiflorus: aristis dorsali contorta.

Raii Syn. Gen. 27. HERBÆ GRAMINIFOLIÆ FLORE IMPERFECTO CULMIFERE.

AVENA flaveſcens panicula laxa, calycibus trifloris brevibus, floſculis omnibus aristatis. Lin. Syſt. Vegetab. p. 105. Sp. Pl. 118. Fl. Suec. p. 103.

AVENA triantha, loculis teretibus, calycina gluma altera minima, petiolo villoſo. Haller. Hist. p. 1497.

GRAMEN avenaceum pratenſe elatius, panicula flaveſcente, loculis parvis. Raii Syn. p. 407.

GRAMEN avenaceum, spica parva flaveſcente, loculis parvis. Moris. Hist. 3. p. 215. f. 8. t. 7. fig. 42. Scheuch. Agric. p. 223. t. 4. f. 18.

Hudson. Fl. Angl. ed. 2. p. 53.

Lightfoot Fl. Scot. p. 106.

Schreber. Gram. tab. 9.

RADIX perennis, culta manifeſte repens.

CULMUS pedalis ad bipedalem, erectus, teres, tribus aut quatuor geniculis purpurascenſibus inſtruſus, hirsutulus.

FOLIA plana, ad duas lineas lata, unâ cum vaginâ, que ſtriata eft pilis modice longis hirsutula.

PANICULA triuncialis et ultra, dum florent ſpiculae quam maxime diſſuſa, e flavo virescens, erecta; poſtea coarctata, ſubſecunda, e flavo-fuīca, ſplendens.

SPICULÆ parvæ, bifloræ, etiam trifloræ et quadrifloræ, floſculis omnibus aristatis. fig. 3. 4. 9.

CALYX: Gluma bivalvis, valvulis inæqualibus, ſubmembranaceis, acuminateis, alterâ majori fig. 1. 2.

COROLLA: Gluma bivalvis, valvulis inæqualibus, alterâ minore subdiaphanâ, membranacea, penitus alba, apice bifida, alterâ majori tribus aut quatuor nervis viridibus inſignita, concava, bifida, aristata. fig. 3. 6.

NECTARIUM: Glumule due longitudine germinis, apice laciniatae. fig. 8.

ARISTA ex dorso circa medium valvulae majoris crum-pit, in vivâ plantâ recta, valvula duplo fere longior, in ſiccâ recurva. fig. 4. 9.

STAMINA: FILAMENTA tria, capillaria, longitudine florum, ANTHERE flavæ, bifurcate. fig. 5.

PISTILLUM: GERMIN ovale, nudum; STYLI duo, ramoſiffimi, ex apice germinis, deflexi. fig. 7.

SEmen oblongum, acuminatum, nudum, valvula majori incluſum

ROOT perennial, when cultivated manifeſtly creeping. STALK from one to two feet high, upright, round, furnished with three or four purplish joints, and covered with numerous short hairs.

LEAVES flat, rarely exceeding two lines in breadth, together with the sheath which is finely grooved covered with hairs of a moderate length.

PANICLE three inches and more in length, while the ſpiculae flower spreading as wide as poſſible, of a yellowish green colour and upright; afterwards cloſing together, with the ſpiculae moſtly one way, and becoming of a yellowish brown colour and shining.

SPICULÆ small, containing two, three, or four flowers, all of which have awns. fig. 3. 4. 9.

CALYX. A glume of two valves which are unequal, ſomewhat membranous, pointed, one larger than the other. fig. 1. 2.

COROLLA. A glume of two valves which are unequal, the leaf somewhat transparent, membranous, white, and bifid, the largest marked with three or four green nerves, hollow, bifid, and furnished with an awn. fig. 3. 6.

NECTARY: two small Glumes, the length of the ger-men, jagged at top. fig. 8.

AWN ſpringing from about the middle of the back of the larger valve, in the living plant ſtraight, almost twice the length of the valve, in the dried one crooked back. fig. 4. 9.

STAMINA: three FILAMENTS very fine, the length of the flowers; ANTHERE yellow, forked at both ends. fig. 5.

PISTILLUM: GERMIN oval, naked: STYLES two, very much branched, growing from the top of the germin, and hanging down. fig. 7.

SEED oblong, pointed, naked, incloſed in the larger valve.

The term *flavescens* has with propriety been given to this species of *Avena*, as its panicle, especially on cloſing after it has flowered, is of a yellower hue than any of the others, and this is one character which may ſerve to diſtinguiſh it; added to this it is one of the leaſt of the genus, its panicle is finely divided, its ſpiculae are ſmall, delicate, and generally contain two perfect flowers; and its leaves and stalks are conſtanſtly hairy: cultivated in a garden, it becomes larger in every reſpect, and the ſpiculae contain three or more flowers.

We may remark that the Arifta or Beard in the living plant is ſtraight, but crooked in dried ſpecimens.

Though not fo common as the *Avena elatior*, it is to be found in moſt pastures, especially such as are elevated, in ſome meadows, and frequently on grassy banks by the road ſide, it flowers about the end of June.

Mr. STILLINGFLEET has not enumerated this graft among his valuable ones, yet it is more deſerving of that diſtinction than ſome of thoſe he has figured, eſpecially the mountain and ſilver Hair-graft, the latter of which is a trifling annual with reſpect to agriculture, unworthy of the Farmer's notice: the yellow Oat-graft is a perennial, forms in many counties a principal part of the fine paſture on the downs, and in divers meadows contributes to the goodneſs as well as greatness of the crop. As to time, it is not fo early as many of the *Poas*, nor is it fo late as ſome of the *Agrofis* tribe; on the whole, from the remarks I have made on it in its wild and cultivated ſtate, I would recommend it as one of the few out of the many English grafts worth the husbandman's attending to.

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Carex clintonii.

AVENA ELATIOR. TALL OAT-GRASS.

AVENA Lin. Gen. Pl. TRIANDRIA DIGYNIA

Cal. 2 valvis, multiflorus: aristæ dorsali contorta.

Raii. Syn. Gen. 27. HERBÆ GRAMINIFOLIÆ FLORE IMPERFECTO CULMIFERÆ.

AVENA elatior paniculata, calycibus bifloris, flosculo hermaphrodito submutico, mutico aristato.

Lin. Syl. Vegetab. p. 104. Sp. Pl. p. 117. Fl. Suec. N. 102.

AVENA diantha folliculis basi villosis, majoris aristæ geniculata. Haller Hist. n. 1492.

GRAMEN nodosum avenacea panicula. Bauh. pin. 2. Scheuchz. Agric. p. 239.

GRAMEN caninum nodosum. Ger. em. 23.

GRAMEN caninum bulbosum vulgare. Park. 1075.

GRAMEN avenaceum elatius, juba longa splendente Raii. Meth. 179. Syn. p. 406. 4.

Hudson. Fl. Angl. ed. 2. p. 53.

Ligibfoot Fl. Scot. p. 105.

Oeder. Fl. Dan. t. 165.

Schreber Gram. t. 1.

RADIX perennis, fibrosa, fibris plurimis, flexuosis, fuscis, intertextis.
CULMI bi aut tripedes, etiam ultra, erecti, tribus quatuorve geniculis purpuraceis distincti, teretes, laves, basi in bulbillos saepe excrecentes.
FOLIA caulinis, spithamea, etiam pedalia, duas tresve lineas latas, una cum vaginâ striata, levia.

PANICULA longa, etiam pedalis, erecta, splendens, laxe coarctata, ramulis plurimis, inæqualibus, subsecundis.

SPICULÆ bifloræ, altero flosculo hermaphrodito, altero mutculo. fig. 1.

CALYX: Gluma bivalvis, valvulis inæqualibus, membranaceis, acutis, albidis, majore nervis tribus viridibus, minore unico insignitis. fig. 2.

COROLLA maris: valvula duæ, longitudine æquales, altera major, concava, nervis sex viridibus notata, apicibus sèpius purpuraceis acuta, aristata, Aristæ infra medium exserta, spicula longiore, geniculata, inferne spiraliiter contorta, superne setacea; altera planiflora, apice bicuspida; valvula hermaphroditi quad formam vix discrepant, at nervis medius prope apicem valvula exterioris, in aristam brevem excurrit, et basi ejusdem valvula pilis plurimis obtegitur. fig. 3. 4.

NECTARIUM Glumule duæ lanceolatae, basi subglobosæ. fig. 6.

STAMINA: FILAMENTA tria, capillaria; ANTHÈRE oblongæ, flave, bifurcate.

PISTILLUM: GERMIN subovatum, villosum; STYLUS duo, magni, ramosissimi, reflexi. fig. 7.

SEmen oblongum, lave, intra glumas calycinæ basi pilosæ, liberum. fig. 8. 9. 10.

ROOT perennial, fibrous, the fibres numerous, crooked, of a brown colour, and matted together.

STALKS from two to three feet high, or even more, upright, having four or five joints of a purplish colour, round, smooth, the base often growing out and forming small bulbs.

LEAVES of the stalk fix or seven inches or even a foot in length, from two to three lines in breadth, together with the sheath striated and smooth.

PANICLE long, even the length of a foot, upright, shining, loosely closing together, branches numerous, unequal, growing in some degree to one side.

SPICULÆ containing two flowers, the one male and the other hermaphrodite. fig. 1.

CALYX: a Glume of two valves, the valves unequal, membranous, pointed, whitish, the largest marked with three and the smallest with one green nerve. fig. 2.

COROLLA of the male flower; composed of two valves, equal in length, the largest hollow, and marked with six ribs, generally purple at top, pointed and bearded; Beard or awn growing out from below the middle of the valves, longer than the spicula, and jointed, on the lower part spirally twisted, on the upper bristly sharped, the least flattish and terminating in two points; the valves of the hermaphrodite flosculæ differ but little from the male one as to shape but the midrib in the outer valve runs out into a short awn and the bottom of the same valve is covered with numerous hairs. fig. 3. 4.

NECTARY: two small Glumes, lanceolate, somewhat globular at bottom.

STAMINA: three FILAMENTA very fine, ANTHÈRE oblong, yellow, and forked.

PISTILLUM: GERMIN somewhat ovate, villous; STYLES two, large, very much branched and hanging down. fig. 7.

SEED oblong, smooth, contained loosely within the glumes of the calyx which are hairy at bottom. fig. 8. 9. 10.

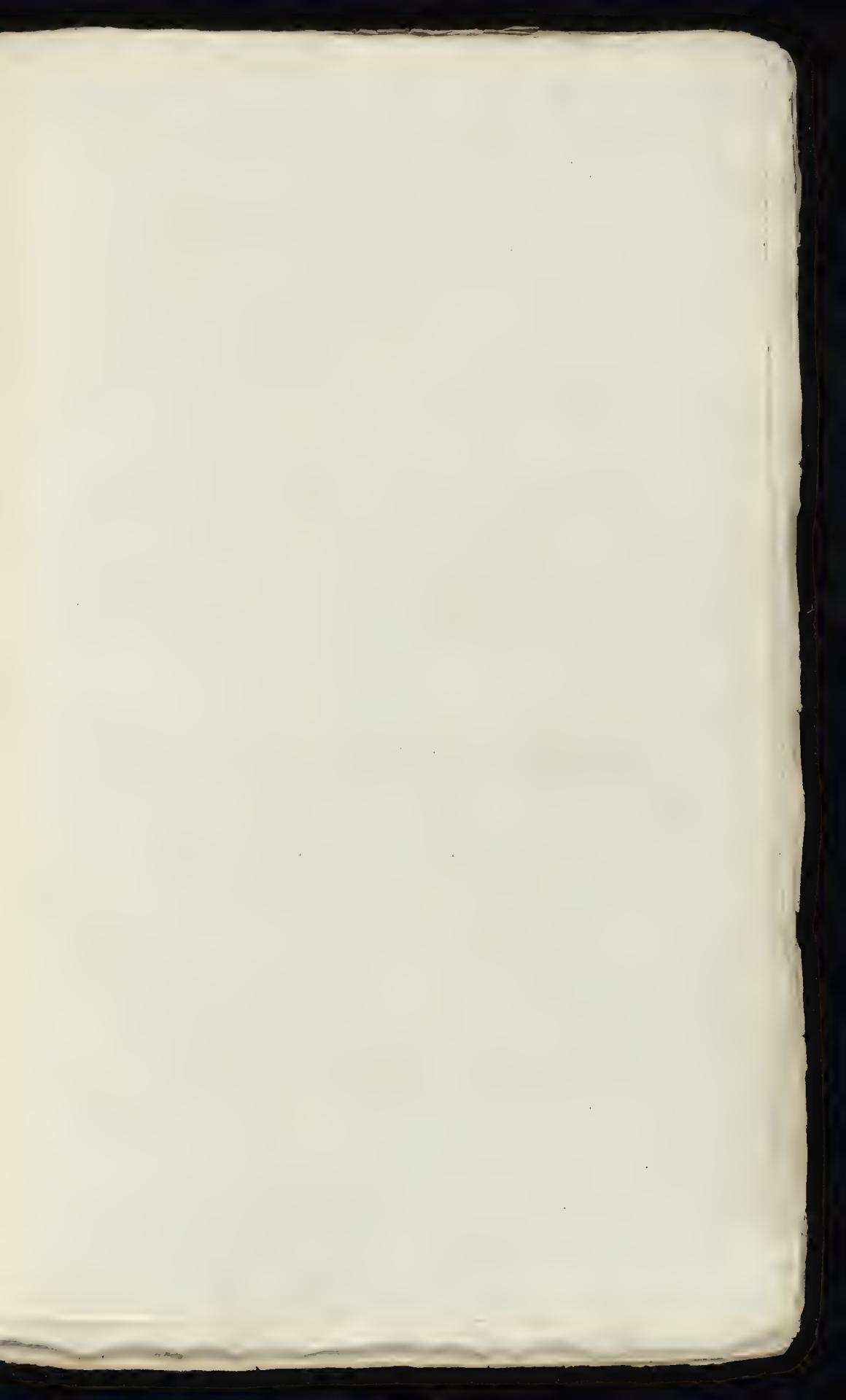
Experience must determine how far this Graff deserves the attention of the Farmer, thus much I may inform him, that it is one of the earliest Graffs in the Spring, that it produces a great crop, and when cut down after feeding, it has flower'd afresh in the autumn, there are certainly some of the necessary requisites in a good Graff, yet it does not often occur in meadows but is rather fond of growing on banks, in hedges and on the borders of fields, where it is very conspicuously in blossom in June and September, nevertheless I have occasionally seen it growing in Pastures; the only objection to it perhaps is its coarseness, which however should not prevent the Farmer from giving it a fair trial.

In particular situations the upper part of the root or rather base of the stalk becomes knobby, and it then forms the *Gramen caninum nodosum* of GERARD, this in some arable Land, I have been informed is very troublesome, and eradicated as Couch; instances often occur in which a valuable plant in one situation is a perfect weed in another.

It is the most common of all our Oat-grafts and is therefore not liable to be mistaken for any other of the same genus.

As it varies with respect to its root, so does it also with regard to its aristæ, of which in general there is only one to each spicula, but sometimes each flosculus contained in the spicula has an aristæ, in which case one is usually longer than the other.

In the graffs no character is more inconstant than that of the awn, aristæ, or beard, in some graffs whose character it is to be muticæ it is present as in the *Lolium perenne*, *Agrostis capillaris*, and *alba*; and in others whose character it is to be aristata it is wanting, as in the *Agrostis canina*, the striking alteration in the appearance of the graffs from this circumstance has often been the cause of multiplying species unnecessarily.



AIRA PRÆCOX. EARLY HAIR-GRASS.

AIRA Linnei. Gen. Pl. TRIANDRIA DIGYNIA.

Cal. 2-valvis, 2-florus. Flosculi absque interjuncto rudimento.

Raii S. n. Gen. 27. HERBÆ GRAMINIFOLIE FLORE IMPERFECTO CULMIFERAÆ.

AIRA præcox foliis setaceis; vaginis angulatis, floribus paniculato spicatis, flosculis basi aristatis.

Linnei Syst. Vegetab. p. 96.

GRAMEN paniculatum minimum molle. Bot. Manib. App.

GRAMEN parvum præcox paniculæ (rotius spicæ) laxa cuncuscante. Raii Syn. ed. 3. p. 408. tab. xxii fig. 2.

GRAMEN avinacum, capillaceum, minimi, glamis minimum. Bergii.

GRAMEN phalaroides, sparsa paniculæ minimum angustifolium. Barreli. Ic. 44. 1. tab. iv. fig. 15.

Lightfoot. Fl. Scot. p. 95.

Hudson. Fl. Angl. 31. ed. 2. p. 36.

Oeder. Fl. Dan. 383.

RADIX annua, fibrosa.

ROOT annual, and fibrous.

CULMI plures, simplices, bi aut triuniales, femineales etiam occurunt, teretes, lœves, erecti.

STALKS several, simple, from two to three inches, sometimes even to six inches high, round, smooth, and upright.

FOLIA radicalia sœpius linearia, convoluta, mārcida; caulinæ vaginæ breviora, suberecta, paululum recurvata, obtusifolia; Membrana pro ratione folii longa, alba, culmum circumvolvens, in plantis adhuc tenellis notatù digna; Vagina striata, subverticosa.

LEAVES, near the root generally linear, rolled up, and withered; those of the stalk shorter than the sheath, nearly upright, but bending a little back, and somewhat blunt; the Membrane, for the size of the leaf, long, white, surrounding the stem, strikingly conspicuous in the plant while young; the Sheath finely grooved, and belying a little in the middle.

PANICULA coarctata, spiciformis, mollis, semiuncialis, aut uncialis.

PANICLE closed together, and resembling a spike, soft, half an inch or an inch in length.

SPICULÆ bifloræ, biaristatae, fig. 1. auct.

SPICULÆ containing two flowers, each of which has an arista, fig. 1, magnified.

CALYX: GLUMA bivalvis, valvulae subæquales, ovato-acute, submembranaceæ, carinæ ad lentem faciatæ, fig. 2.

CALYX: a GLUME of two valves, the valves nearly equal, oval, and pointed, somewhat membranous, the keel appearing rough when magnified, fig. 2.

COROLLA: GLUMA bivalvis, valvulae subæquales, longitudine calycis, altera majori, bicuspidata, aristata; arista infra medium gluma profita, corolla duplo longior, plurumque recta, fig. 3. 5.

COROLLA: a GLUME of two valves, nearly equal, of the length of the calyx, one of which is larger than the other, terminated by two long points, and furnished with an arista; the arista growing out from below the middle of the glume, twice the length of the corolla, and generally straight, fig. 3, 5.

STAMINA: FILAMENTA tria, capillaria, brevissima: ANTHÈRAE minimæ, flavescentes, fig. 4.

STAMINA: three FILAMENTS, fine, and very short: ANTHÈRAE very minute, and yellowish, fig. 4.

PISTILLUM: GERMIN oblongum: STYLIS duo, ad basin usque ramosi.

PISTILLUM: GERMIN oblong: STYLES two, and branched to the bottom.

SEmen oblongum, hinc convexum inde concavum, bicuspidatum, aristatum, basi pilosum, fig. 6, 7.

SEED oblong, convex on one side, and hollow on the other, having two points, with an arista, hairy at bottom, fig. 6, 7.

THE *Aira præcox* is very common on most of our heaths about town, particularly on *Black-heath*.

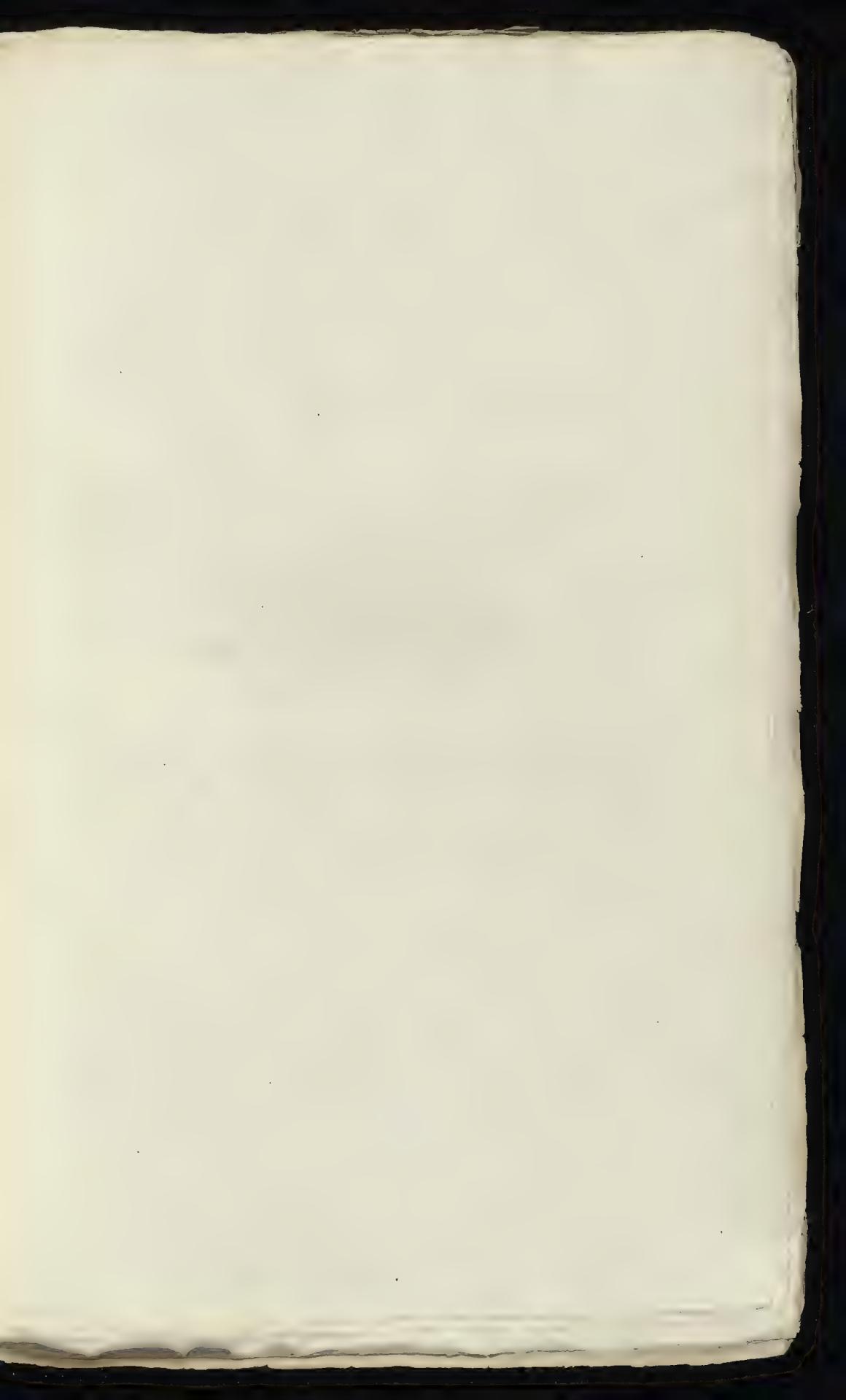
It flowers in April and May, and ripens its seed in June.

SCHUCHZER mentions its growing sometimes to the height of fourteen inches, a height it rarely attains with us.



Agrostis pumila

Chamomelidae





c. *Mentha pulegium.*

MONTIA FONTANA. BLINKS.

MONTIA Lin. Gen. Pl. TRIANDRIA TRIGYNIA.

Cal. 2 phyllus. Cor. 1 petala irregularis. Caps. 1 locularis, 3^o valvis.

Raii. Syn. Gen. 24. HERBÆ PENTAPETALÆ VASCULIFERÆ.

MONTIA fontana Lin. Syl. Veget. p. 110. Sp. pl. 129. Succic. n. 115.

MONTIA Haller. Hist. n. 301.

PORTULACA arvensis. Bauh. pin. 282.

CAMERARIA arvensis minor. Dill. Gj. 46.

PORTULACA exigua seu arvensis Cameraria J. B. III. 678.

PORTULACA tricoccos. Pet. Herb. Brit. 10. 12.

ALSINE flocculus conniventibus. Merr. pin.

ALSINEFORMIS paludosa tricarpos flocculus, albis inapertis. Pluk. Alm. 21. T. 7. f. 5.

ALSINE parva palustris tricoccos, Portulacæ aquaticaæ similis. Raii. Syn. p. 352. small water Chick-weed or Purflane by some called Blinks.

Order. Fl. Dan. t. 113.

Hadson. Fl. Angl. ed. 2. p. 60.

Ligibfoot. Fl. Scot. p. 110.

RADIX annua, fibrosa.

CAULES plurimi, teretes, glabri, rubentes, in terram reclinati et subinde radices agentes, duorum, triumve digitorum longitudine, ramo et crebris geniculis intercepti.

FOLIA oppposita, sessilia, oblonga, acutiuscula, prope basin angustata, subcarnosa, glabra, pallide virentia.

PEDUNCULI plerumque terni, uniflori, axillares, peracta florcentia recurvati, postea erecti, foliis longiores, e squama membranacea praodeunt.

CALYX: PERIANTHIUM diphylum; foliolis ovatis, concavis, obtusis, erectis, persistentibus. fig. 1. 9.

COROLLÆ monopetala, quinquepartita, alba, laciniiis tribus, alternis, minoribus, staminiferis. fig. 2. 3. 4.

STAMINA: FILAMENTA tria, capillaria, corollæ breviiora, cui inferta: ANTERÆ parve, albae. fig. 4.

PISTILLUM: GERMEN turbinatum, subtriangularium; STYLI tres, villosi, patentes; STIGMATA simplicia. fig. 5.

PERICARPIUM: CALYX permanens, auctus, truncatus, continet CAPSULAM, turbinatam, unicularem, trivalvem, valvulis ovatis, acutis, monospermis, demiflore female filiformibus, calyce paulo longioribus. fig. 6. 7. 8. 10.

SEMINA nigra, subreniformia. fig. 11.

ROOT annual, and fibrous.

STALKS numerous, round, smooth, reddish, spreading on the ground, and sometimes striking root, two or three inches in length, branched and jointed.

LEAVES opposite, sessile, oblong, somewhat pointed, narrowed near the base, rather fleshy, smooth and of a pale green colour.

FLOWER-STALKS generally growing three together, each supporting one flower, proceeding from a little scale in the bosom of the leaves, as soon as the flowering is over hanging down, afterwards becoming upright and longer than the leaves.

CALYX: a PERIANTHIUM of two leaves: the leaves oval, concave, obtuse, upright, and permanent, fig. 1. 9.

COROLLÆ one petal, deeply divided into five segments, of a white colour, the three alternate ones least, having the stamna attached to them, fig. 2. 3. 4.

STAMINA: three slender FILAMENTS shorter than the corolla to which they are connected: ANTERÆ small and white fig. 4.

PISTILLUM: GERMEN large at top, small at bottom, and somewhat triangular; STYLES three, villosi, spreading; STIGMATA simple. fig. 5.

SEED-VESSEL: the permanent and encrusting CALYX, cut off as it were at top contains a CAPSULE of the same shape as the germin, of one cavity and three valves, the valves ovate, and pointed, each containing one seed on the falling of which they become thread shaped and a little longer than the calyx. fig. 6. 7. 8. 10.

SEEDS black and somewhat kidney-shaped. fig. 11.

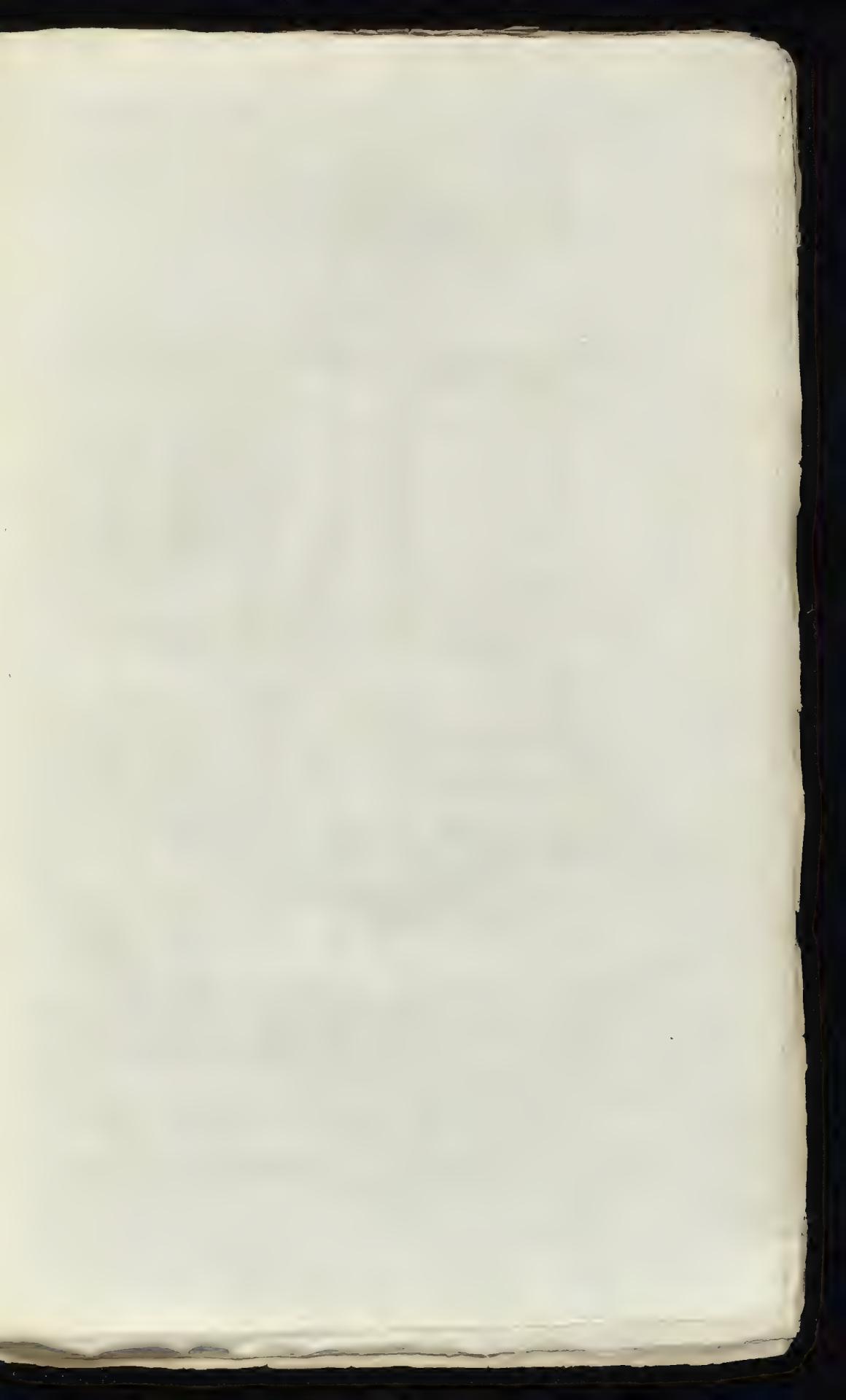
THIS plant of which there is but one species appears first to have had a generic character bestowed on it by DILLENIUS, who called it *Cameraria* in honour of CAMERARIUS a German Physician and Botanist; MICHELI afterwards figured it among his *Nova Genera* and gave it the name of *Montia* in commemoration of his countryman MONTI an Italian Botanist, which name has been adopted by LINNEUS.

Its parts of fructification which are represented in a magnified state, on the Plate, and of which a particular description is given are singular enough to justify these Authors in making it a distinct Genus.

The English name of *Blinks* has perhaps been given to this plant from the blossoms usually appearing in a half opened state, but when the Sun shines on them they are fully expanded.

It grows in wet places, especially on the moist gravelly parts of Heaths, where the water stagnates in the winter, on *Black-Heath*, *Hampstead-Heath*, and in other similar situations it is very common, flowering in May and ripening its seed in the beginning of June.

It is eatable of Cultivation but not remarked for its utility in any respect; the seed may probably be the food of small Birds.



DIPSACUS SYLVESTRIS. WILD TEASEL.

DIPSACUS Lin. Gen. Pl. TETRANDRIA MONOGYNIA

Calyx communis, polyphyllus; proprius superus. Recept. paleaceum.

Raii. Syn. Gen. 8. HERBÆ CORYMBIFERIS AFFINES.

DIPSACUS capitulus ovatus, foliis arcuatis circumvallatis, aristis squamarum rectis. Haller hyl. n. 198.

DIPSACUS sylvestris seu Labrum Veneris. I. B. III. 74.

DIPSACUS sylvestris aut Virga pastoris major. C. B. p. m. 385.

DIPSACUS sylvestris. Ger. emac. 1167. Parkins. 984.

Hudson. Fl. Angl. ed. 2. p. 6.

Lighthfoot Fl. Scot. p. 113.

Jacquin Fl. Austr. t. 402.

RADIX biennis, simplex, fibris majusculis donatus,
CAULIS tripedalis ad orgyalem, ramosus, teres,
striatus, inanis, inferius spinis rarius dispositus,
prope capitula creberrimis horridus.

FOLIA radicata primi anni supra terram in orbe
sparsa, ovato-oblonga, obtusifuscula, crenato-
ferrata, rugosa, spinulis rarioribus aspera,
caulinis faltem inferioria minus rugosa, basi
adeo connata ut finum magnu[m] efficiant, post
pluvias aqua plenum, ovato-acuta, crenata,
spinis ad marginem et nervum medium ra-
rius oblitum, summa minus connata, magis-
que lanceolata, integerrima et fere inermia.

CAPITULA plurima, solitaria, ercta, ovato-oblonga,
subacuminata.

FLORES purpurei, circa medium capitulo primo
erumpentes.

INVOLUCRUM polyphyllum, foliis sublinearisbus,
rigidis, spinolatis, tufsum arcuatis, longi-
tudine capituli, inaequalibus.

CALYX: PERIANTHIIUM proprium, minimum, viride,
ciliatum. fig. 1.

COROLLA monopetalous, tubulosa; Tuba infundibuli-
formis, basi attenuatus, albido, ad lente[m]
villosum; Limbus quadrifidus, erectus, pur-
pureus, laciniis obtusis, extimus major. fig. 2.

STAMINA: FILAMENTA quatuor, albida, capillaria,
recta, tubo corollæ inserta; ANTHÈRE incum-
bentes, oblonga, violacea. fig. 3.

PISTILLUM: GERMEN inferum, tetragonum, albi-
dum, fulcatum, margine superne viridi;
STYLOS filiformis albus, corollâ paulo brevior;
SIGMA canaliculatum, tubinflexum fig. 4.
fig. 6.

RECEPTACULUM paleaceum, paleis longitudine
staminum, rigidis, aristatis, supremis longi-
oribus, basi concavis, subtriangularibus;
Arista acuminata, recta, hispidula. fig. 8.

ROOT biennial, simple, furnished with large fibres.
STALK from three to six feet high, branched, round,
striated, hollow, spinous, spines near the base but few, near the heads very numerous,
long and sharp.

LEAVES: radical leaves of the first years plant
spread on the ground in a circular form, are
of an oblong oval shape, bluish at the point,
notched on the edges, wrinkled, and rough
with spines thinly scatter'd over the leaf,
those of the stalk at least the lowermost ones,
are less wrinkled, and united at the base in
such a manner as to form a large cavity,
which contains water after rain, of an oval
pointed shape, notched, and thinly beset with
spines on the edge and mid-rib, the uppermost
leaves slightly united at the base, narrower,
entire, and almost free from spines.

HEADS numerous, growing singly on footstalks, up-
right, of an oblong egg shape, somewhat
pointed at top.

FLOWERS purple, first breaking forth about the
middle of the head.

INVOLUCRUM composed of many leaves which are
somewhat linear, rigid, beset with small
spines, bending upwards, the length of the
heads, unequal.

CALYX: THE PERIANTHIIUM of each floscule is very
minute, green and edged with hairs. fig. 1.

COROLLA monopetalous, tubular; the Tube funnel-
shaped, narrowed at the base, whitish and
slightly villous if magnified; the Limb divided
into four segments, upright, purple, the
segments obtuse, the outermost largest. fig. 2.

STAMINA: four FILAMENTA, of a whitish colour,
very fine, straight, inserted into the tube of
the corolla; ANTHÈRE incumbent, oblong,
of a violet colour. fig. 3.

PISTILLUM: GERMEN placed below the calyx, four
corner'd, whitish grooved, the edge on the
upper part green; STYLE thread-shaped,
white, a little shorter than the corolla,
SIGMA channeled and bent a little in.
fig. 4. 5. 6.

RECEPTACLE chaffy chaff the length of the Stamina,
rigid, bearded, the uppermost longest; at bot-
tom hollow, and somewhat triangular; the
Beard or awn running out to a long, straight,
and somewhat bifid point. fig. 8.

THE ancient Botanists always considered the wild and the manured Teasel as two distinct species, and 'till the time of Linnaeus but one opinion prevailed on the subject, that great Botanist too hastily concluded that the *Dipsacus fullonum* was only a variety of the *sylvestris*, some few have implicitly followed that opinion, but Haller and Jacquin distinguished by their nice discernment and accurate descriptions unite in considering the *sylvestris* as a species totally distinct from the *fullonum*: in the manured Teasel the leaves of the Involucrum are short and horizontally extended, in the wild one they are long and encircle the head, the Palea in the former are always hooked at the extremity, in the latter never, tho' cultivated, many other distinctions will be pointed out when we give the history and manner of cultivating the manured Teasel.

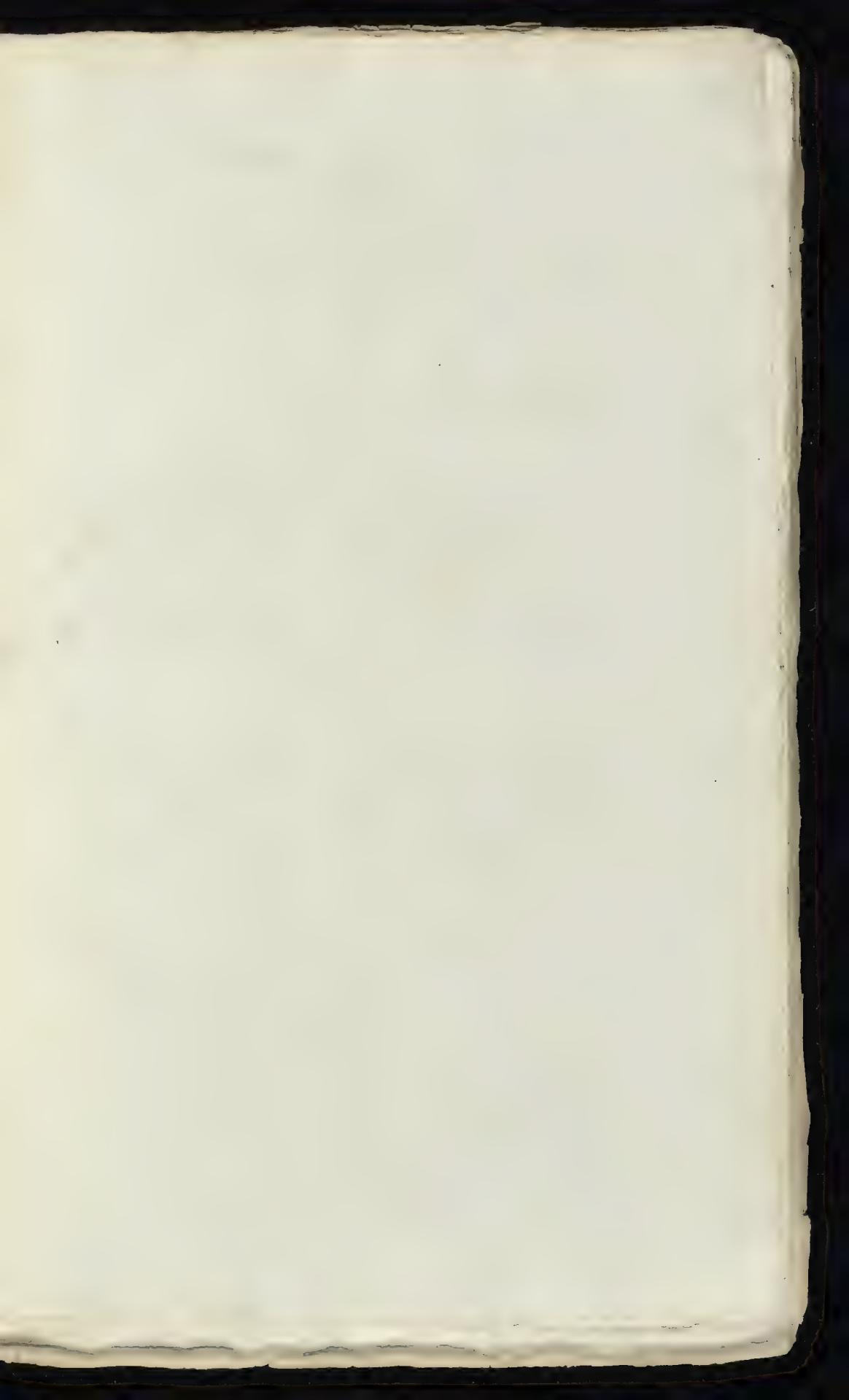
This species grows very commonly on the edges of pastures, in uncultivated places, by road sides, and flowers from July to September.

The water collected in the basin form'd by the union of the leaves towards the bottom of the stalk is said to cure warts on the hands if several times wash'd with it, and hence RAY conjectures this plant might have received its name of *Labrum Veneris*.

Cattle in general even the Afs appear to avoid it; as is shewn by the dried stems and heads which remain all the winter, but there is a small Moth about twice the size of the *Euzymella*, speckled with black, which finds its way into this formidable plant, and makes a comfortable and secure domicilium of its spinous head. vid. Moufet *Teat. Infect.* p. 256. Raii catal. plant. circa Cant. p. 45.



Silybum marianum.



Scabiosa succisa. Devils-bit, or Meadow Scabious.

SCABIOSA Lin. Gen. Pl. TETRANDRIA MONOGYNIA

Cal. communis polyphyllus; proprius duplex superus. Recept. palzaceum s. nudum.

Raii. Syn. Gen. 8. HERBÆ CORYMBIFERIS AFFINES.

SCABIOSA *Succisa* corollulis quadrifidis æqualibus, foliis caulinis dentatis, floribus subglobosis.

SCABIOSA *succisa* corollulis quadrifidis æqualibus, caule simplici, ramis approximatis, foliis lanceolato-ovatis int. gerimis. Lin. Syst. Vegetab. p. 142.

SCABIOSA caule trifloro, floribus couvexis, foliis radicalibus ovatis, caulinis lanceolatis. Haller. Hist. 201.

SCABIOSA *succisa* Scopoli Fl. Carniol. p. 95. n. 138.

SUCCISA glabra et hirsuta B. pin. 269.

MORSUS DIABOLI Ger. em. 726.

MORSUS DIABOLI vulgaris flore purpureo Perkins. 491.

SCABIOSA radice succisa, flore globoſo. Raii. Syn. 191. Devil's-bit.

Hudson. Fl. Angl. ed. 2. p. 63.

Lightfoot. Fl. Scot. p. 114.

RADIX adulta crassissima fere digitii minimi, saepe obliqua, præmorsa, fibris longis albidoſis prædicta.

CAULIS pedalis, ad scutigerae dalem, suberectus, nobiscum raro simplex, at in duos, tres, vel plures ramos divisus, teres, hirsutus, rubescens.

FOLIA radicalia ovalia, petiolis brevibus infidentia, saturate viridia, in petiolum breviter decurrentia, integerrima, plus longis utrinque hirsuta, caulinis opposita, connata, lanceolata, rariter dentata, suprema sublinaria, integerrima.

CAPITULI Florum subglobosif, cærulei, solitarii, pedunculis longis nudis seu parum foliosis infidentibus.

CALYX: PERIANTHIUM commune multiflorum, patens, polyphyllum; foliis ovato-acutis, ciliatis, basi subgibbosif, seriebus varia receptaculum cingentibus, eique infidentibus, quorum interior gradatim minora; fig. 1. 11. Perianthium proprium duplex, inferius tetragonum, pilosum, germen includens; fig. 2. superius germiñi infidens, quinquepartitum, lacinias intercisis, fig. 3.

COROLLA monopetala, tubulosa, quadrifida, lacinia obtusa, tribus inferioribus lobæ equalibus, superiore longiore. fig. 4.

STAMINA: FILAMENTA quatuor, subulata, corolla fere duplo longiora; ANTHERA oblongæ, incumbentes, violacea; POLLEN album. fig. 5.

PISTILLUM: GERMEN minimum, albidum, cylindraceo-ovatum; STYLUS filiformis, dum antheræ pollinem dimittunt longitudine labii inferioris corolla; STIGMA orbiculatum, medio depresso. fig. 6. 7. 8.

SEmen oblongum, fulcato-angulofum, hirsutum, fetis quinque coronatum. fig. 10.

ROOT when full grown, nearly the thickness of the little finger, often growing obliquely, bit off as it were or stumped at the extremity, and furnished with long whitish fibres.

STALKS from a foot to a foot and a half high, nearly upright, with us rarely single but divided into two, three or more branches, round, beset with rough hairs and of a reddish colour.

LEAVES next the root, oval, standing on short footstalks, of a deep green colour, running a little way down the footstalk, entire at the edge, cover'd on both sides with long, rough hairs; those on the stalk opposite, connate, lanceolate, sparingly toothed on the edge, the uppermost nearly linear and entire.

HEADS of the flowers nearly round, blue, single, fitting on long, naked or almost naked flower stalks.

CALYX: the general PERIANTHIUM supports many florets, is spreading and composed of many leaves, which are of an oval pointed shape, edged with hairs, somewhat gibbous at the base, surrounding and fitting on the receptacle in various rows, of which the innermost are gradually the smallest fig. 1. 11. Perianthium of each floret double, the lower one four corner'd, hairy, inclosing the germen, fig. 2, the upper one fitting on the germen, divided deeply into five segments shaped like bristles. fig. 3.

COROLLA monopetalous, tubular, divided into four obtuse segments, the three lowermost of which are nearly equal, the uppermost somewhat longer. fig. 4.

STAMINA: four FILAMENTS, tapering to a point, almost twice the length of the corolla; ANTHERA oblong, incumbent, of a violet colour; POLLEN white. fig. 5.

PISTILLUM: GERMEN very small, whitish, rarely cylindrical, inclosed within the calyx; STYLE thread shaped, while the Antherae are shedding the pollen, the length of the lower lip of the corolla; STIGMA round, flat, with a depression in the middle. fig. 6. 7. 8.

SEED oblong, angular, grooved, beset with rough hairs and crowned with five setæ or bristles. fig. 10.

THE Devils bit is one of those few plants which adorn our Pastures in Autumn, and is capable of adding some beauty even to the flower Garden, in which it grows much more branched than in its wild state and continues in blossom from August to the end of October; like Plantain and many other herbs, the root when full grown is stumped at the extremity.

" Fabulous antiquity (the Monkes and Fryers as I suppose being the first inventors of the Fable) said, that the Devill envying the good that this Herbe might do to mankind, bit away part of the root and thereof came the name of Succisa or Devils bit. Partington Theat. p. 491.

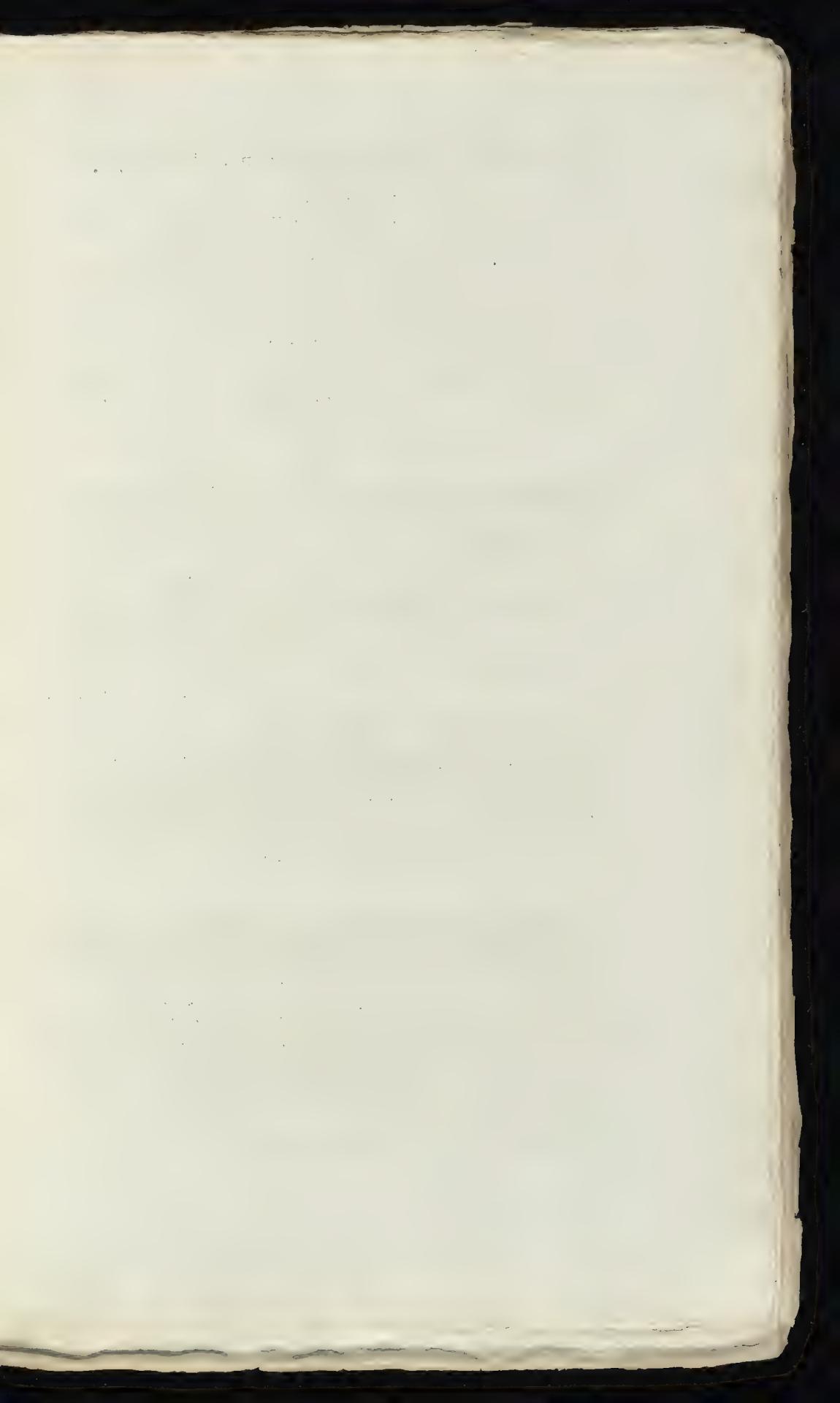
Modern practitioners not finding those wonderfull good effects have rejected it.

According to Baragius the root posseseth an astringent quality, and the infusion of it is bitterish, but not unpleasant to the taste.

The Caterpillar of one of the Fritillary Butterflies (*Papilio maturna* of LINNÆUS, the greasy Fritillary of the Author) feed on the leaves of this species.



Scabrosa • lucifera



CENTUNCULUS MINIMUS. BASTARD PIMPERNEL.

CENTUNCULUS Lin. Gen. Pl. TETRANDRIA MONOGYNIA.

Cal. 4 fidus. Cor. 4. fida, patens. Stam. brevia. Caps. 1 locularis, circumscissa.

Raii Syn. Gen. 18. HERBÆ FRUCTU SICCO SINGULARI FLORE MONOPETALO.

CENTUNCULUS minimus. Linnæi Syst. Vegetab. p. 133. Spec. Plantar. p. 169. Flor. Suec. p. 136.

CENTUNCULUS, Haller. Hif.

CENTUNCULUS, Dillen. Catal. Giss. p. 161 et App. p. 111. Tab. 5.

ALSINE palustris minima, flosculis albis, fructu Coriandri exigu. Ments. Pug. Icon.

ANAGALLIS palustris. Vaillant. p. 12. t. 4. f. 2.

ANAGALLIDIASTRUM exiguum foliis lanceolatis alternis, flore albo fugaci et vix conspicuo. Michel nov. gener. p. 14. t. 18. Hudson. Fl. Angl. ed. 2. p. 63.

RADIX annua, simplex, fibrosa.

CAULIS unguicularis ad pollicarem aut ultra, simplex seu ad basin ramosus, subrectus, teres, glaber.

FOLIA alterna, sessilia, ovata, acuta, integerrima, glabra, subcarnosa, patentia.

FLORES minimi, solitarii, axillares, sessiles.

CALYX: PERIANTHIUM quadripartitum, patens, persistens, lacinias ovato-lanceolatis, margine fuscis, corolla longioribus. fig. 1.

COROLLA monopetala, purpurascens, subrotata; TUBUS globulus; LIMBUS quadripartitus, erectus, lacinias ovato-acutis; demum clausis, et calyptis instar capsulae inservientibus. fig. 2.

STAMINA: FILAMENTA quatuor, corolla breviora; ANTERAE minima, flavæ. fig. 3.

PISTILLUM: GERMIN subtundum, intra tubum corollæ; STYLUS filiformis, longitudine germinis et corollæ, erectus, persistens; STIGMA simplex. fig. 4.

PERICARPIUM: CAPSULA globosa, unilocularis, circumscissa. fig. 5.

SEMINA plurima, minima, subconica. fig. 6.

* ROOT annual, simple and fibrous.

STALK from half an inch to an inch in height or more, simple or branched at bottom, somewhat upright, round, and smooth.

LEAVES alternate, sessile, ovate, pointed, entire at the edge, smooth, somewhat fleshy and spreading.

FLOWERS very minute, single, in the axæ of the leaves, without footstalks.

CALYX a PERIANTHIUM divided deeply into four segments, spreading, and permanent; the segments ovato-lanceolate, brown on the edge, and longer than the corolla. fig. 1.

COROLLA purplish, monopetalous, somewhat wheel-shaped; Tube globular; LIMS divided into four segments, which are upright, and of a pointed oval shape, finally closed and fitting like a calyptra on the top of the capsule. fig. 2.

STAMINA: four FILAMENTS shorter than the corolla; ANTERÆ very minute and yellow. fig. 3.

PISTILLUM: GERMIN roundish, within the tube of the corolla; STYLE filiform, the length of the germin and corolla, upright and permanent; STIGMA simple. fig. 4.

SEED-VESSEL: a CAPSULE of a globular shape, of one cavity, dividing horizontally in the middle. fig. 5.

SEEDS numerous, very small and somewhat conical. fig. 6.

The English Botanist is here presented with a plant remarkable for the minuteness of all its parts, but more especially of its blossoms, which are not expanded so as to shew the interior structure of the flower, unless the fun shines strongly on them, then we discern its yellow stamina; DILLENIUS, who first gave to this plant the name of *Centunculus* and made a new genus of it, remarks a circumstance deserving notice, which is that the Corolla, which in most of the *rotaceæ* (wheel-shaped flowers) drops after blooming, here continues, and covers the top of the capsule.

From the small number of places in which this plant has been described to grow, we have been led to consider it as a much scarcer plant than it really is.

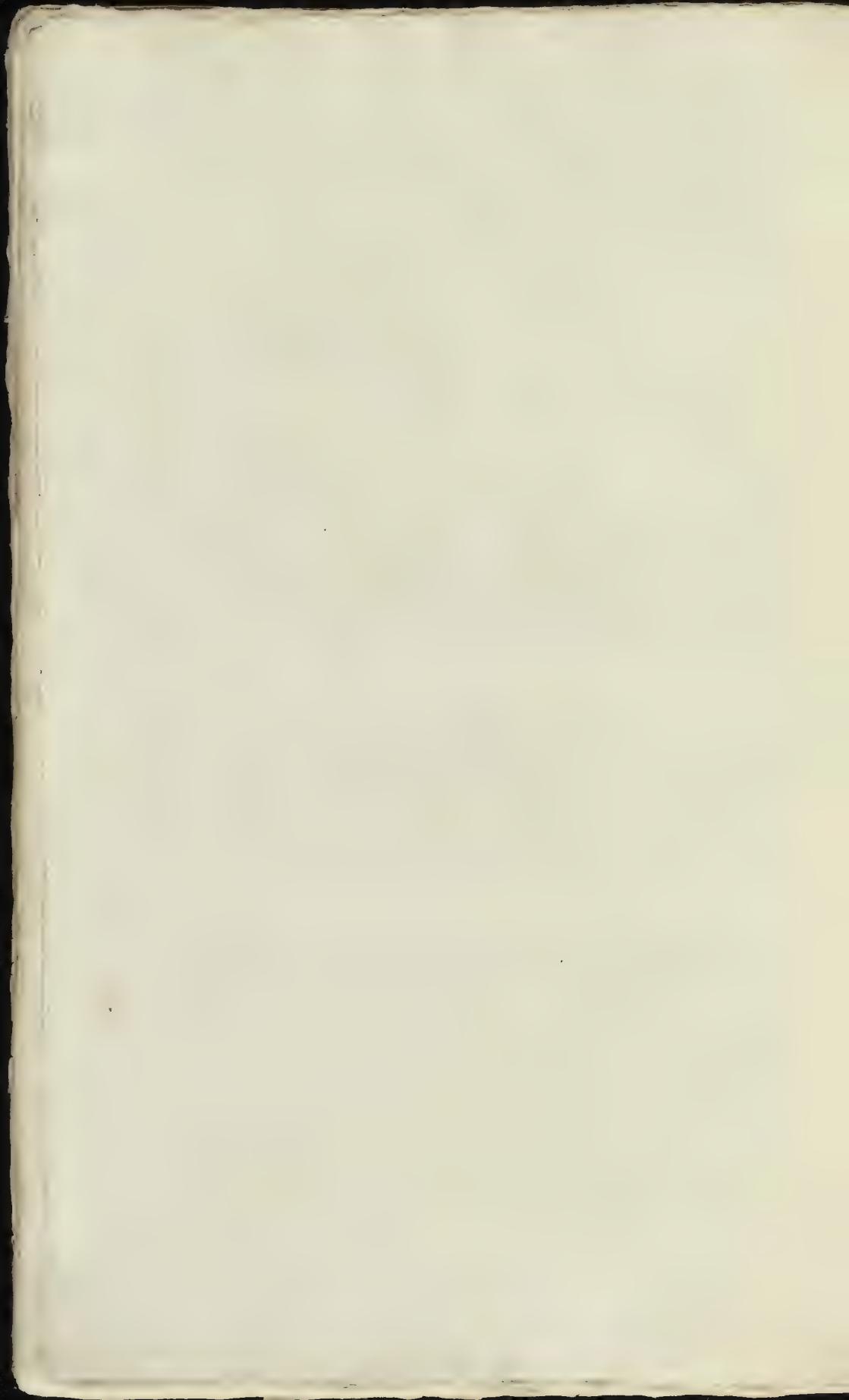
The first time of my discovering the *Centunculus minimus* was this summer, when herbarizing in company with Mr. DYER; I found it on *Ashford Common* near his country seat, it there grew in tolerable plenty, in moist depressions, usually overflowed in the winter along with the *Littorella lacustris*, passing from *Ashford* to *Hounslow Heath*, I there found it in similar situations in greater plenty, *Spergula nodosa* in bloom, *Veronica Serpyllifolia* and *Sagina procumbens* growing in abundance near it; this was about the middle of July, when the plant had both flowers and capsules on it, and August the 21st plants from the same place removed into my garden and placed in a pot in a shady situation, were in great perfection, so that the *Centunculus* is not so fugacious a plant as many.

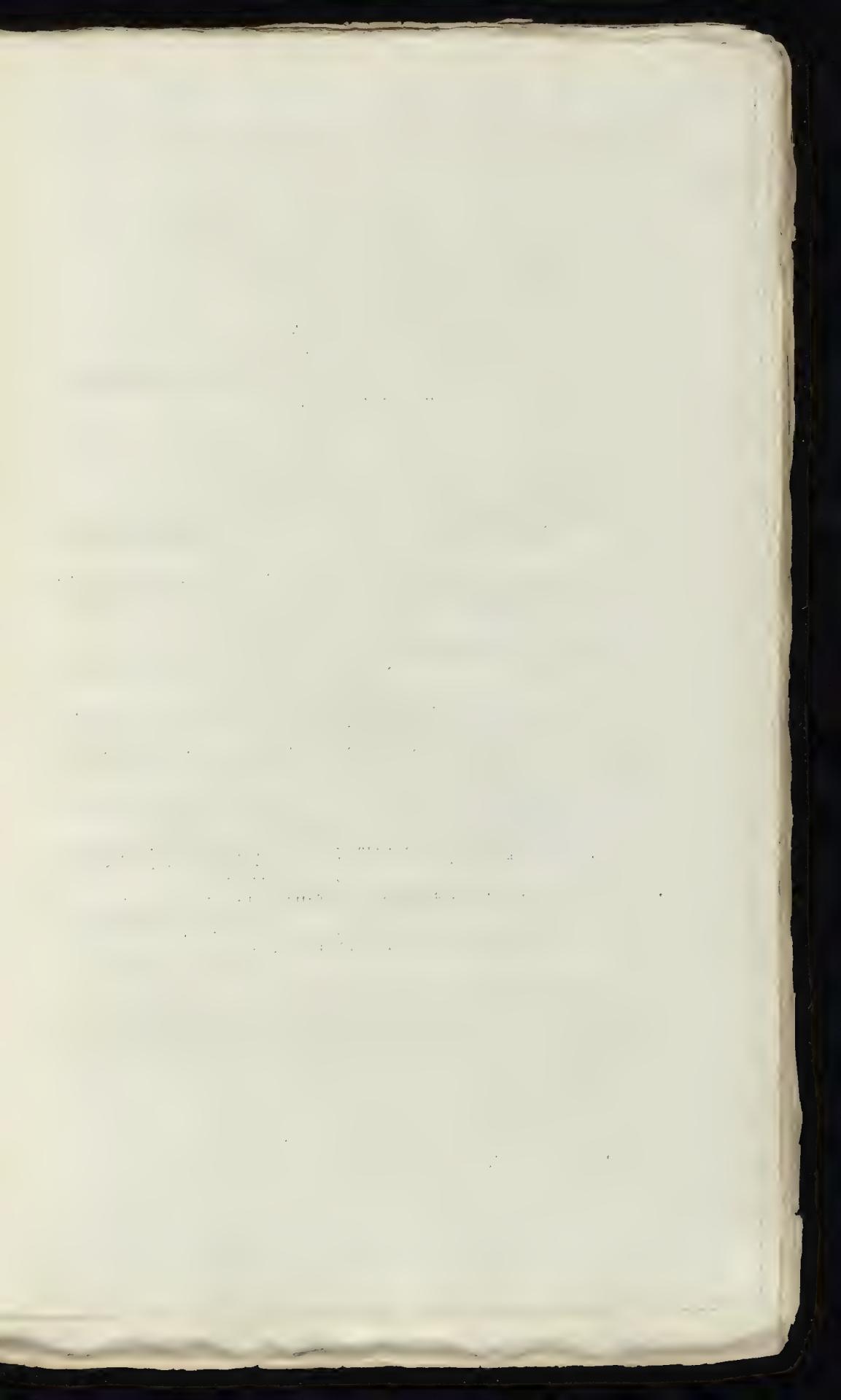
It generally grows about the size figured in the plate, but may, according to circumstances, be found much larger, as well as much smaller.

Its round capsules in the axæ of the leaves, like small Coriander seeds, contribute most to the discovering of it.



Centaurium minus





SAGINA PROCUMBENS. PROCUMBENT PEARLWORT.

SAGINA Linnaei Gen. Pl. TETRANDRIA TETRAGYNIA.

Cel. 4-phyllo. Petala. 4. Caps. 1-loclaris, 4-valvis, polysperma.

Raii Syn. Gen. 24. HERBÆ PENTAPETALE VASCULIFERÆ.

SAGINA procumbens ramis procumbentibus. Lin. Syst. Vegetab. Sp. Plant. 185. Fl. Suec. n. 155.

ALSINE tetraestemon foliis connatis, lanceolatis. Haller hif. n. 861.

SAGINA procumbens. Scopoli Fl. Carn. n. 183.

SAXIFRAGA anglicana alsinefolia. Gerard emac. 568.

CARYOPHYLLUS minimus muscosus nostras. Parkinson. 1340.

AL SINELLA muscosa flore repens. Cat. Gifs. Raii. Syn. p. 345. Pearl-wort, Chickweed Breakstone.

Hudson. Fl. Engl. ed. 2. p. 73.

Lightfoot. Flor. Scot. p. 125.

RADIX annua plerumque, in locis vero umbrosis saepe perennat. ROOT generally annual, but in shady places often perennial.

CAULES plurimi, in umbrosis humentibus repentes, in aridis erecti, bi. triunciales, teretes, glabri, geniculati, ramosi, proliferi.

FOLIA femunciam longa, opposita, patentia, connata, subulata, mucronata, glabra, saturate viridia, fasciculatim ramos terminantia.

PEDUNCULI axillares, plerumque uniflori, alterni, foliis longiores, priusquam flores aperiuntur apice nutantes.

CALYX: PERANTHİUM tetraphyllum, foliolis ovatis, concavis, persistentibus, patentibus, fig. 1.

COROLLA: PETALA quatuor, minima, calyce triplo breviora, alba, patentia, saepe manca, fig. 2.

FAMINA: FILAMENTA quatuor, capillaria; ANTHERA fructuosa, flava, fig. 3.

STILLUM: GERMIN subglobosum; STYLI quatuor, subulati, recurvi, pubescentes; STIGMATA simplicia, fig. 4.

PERICARPIUM: CAPSULA subovata, pellucida, calyci patulo infidens, unilocularis, quadrivalvis, fig. 5.

MINA numeroſa, minima, rufa, receptaculo affixa.

STALKS numerous, in shady moist places creeping, in dry situations upright, two or three inches in length, round, smooth, jointed, branched and proliferous.

LEAVES half an inch long, opposite, spreading, joining at bottom, in row, and tapering, terminated by a fine hair-like point, smooth, of a deep green colour, and terminating the branches in clusters.

FLOWER-STALKS growing from the alæ of the leaves, usually supporting one flower, longer than the leaves, before the blossoms open nodding at top.

CALYX: a PERANTHİUM of four leaves, which are oval, hollow, permanent, and spreading, fig. 1.

COROLLA: four PETALA, very minute, three times shorter than the calyx, white, spreading, and often imperfect, fig. 2.

STAMINA: four FILAMENTS very fine; ANTHERA roundish and yellow, fig. 3.

PISTILLUM: GERMIN somewhat globular; STYLES four, tapering, bending back a little, with an appearance of down on them; STIGMATA simple, fig. 4.

SEED-VESSEL: a CAPSULE somewhat oval, and pellucid, fitting on the spreading calyx, having one cavity and four valves, fig. 5.

SEEDS numerous, very small, of a reddish brown colour, and affixed to a receptacle,

Few plants are more liable to mislead the young Botanist than this, as there are few that assume so great a variety of appearance, in moist shady situations, especially if growing on the ground, it creeps and forms a thick close turf and looks like a patch of grass, the leaves are of a fine deep green and rather fleshy, on walls especially if it be the shady side, it frequently grows upright even to the height of six inches, and is in every respect more slender, on walls that are exposed to the sun it seldom grows more than two inches high, under all this diversity, the singular appearance of its seed vessels will in general easily distinguish it, being placed on the center of the expanded permanent calyx like a cup on a saucer.

Its petals are very minute, generally imperfect and sometimes wanting.

It is not unusual to meet with it, having one fifth part of its fructification encreased.

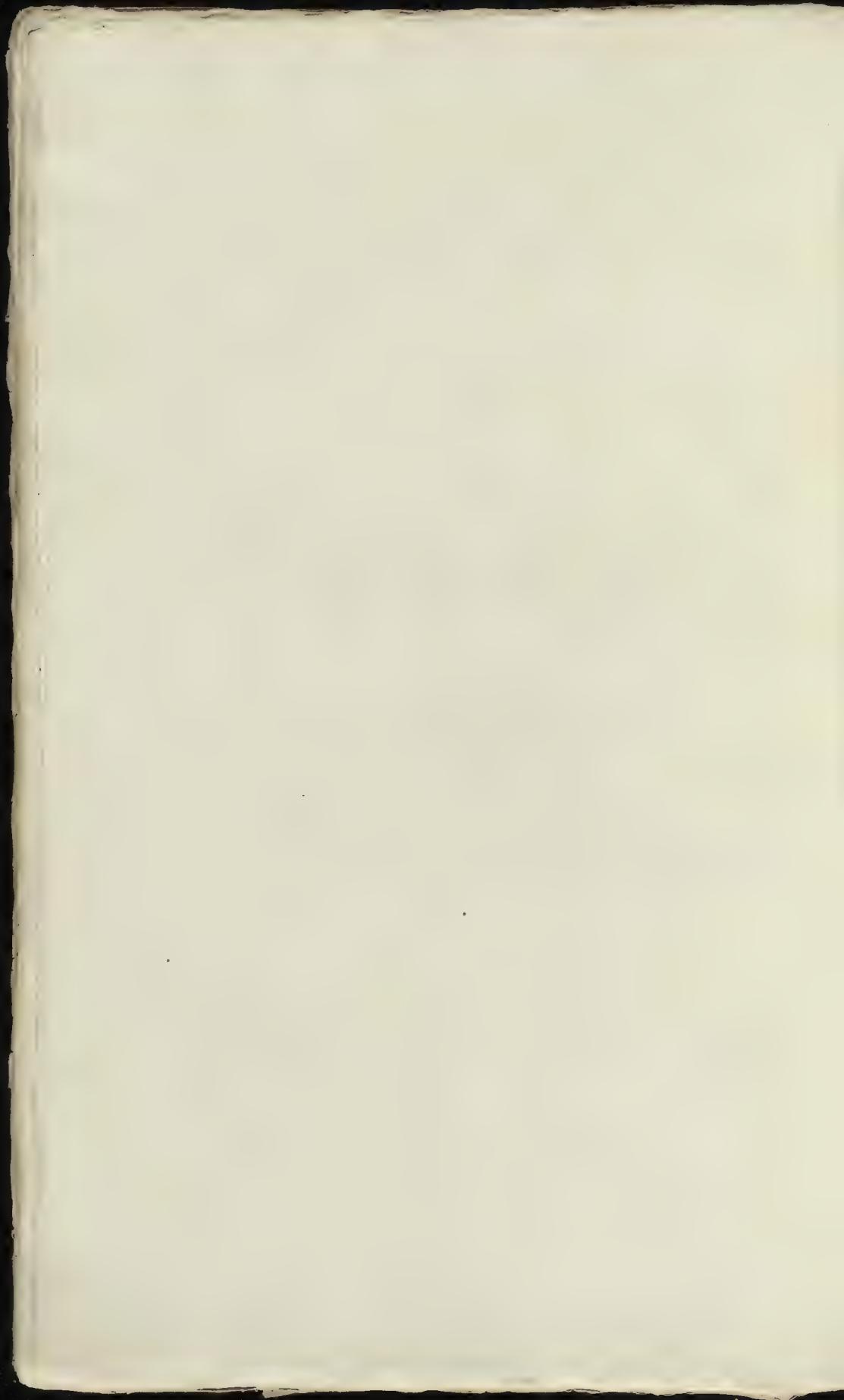
Being fond of a gravelly soil it often becomes a troublesome weed in gravel walks.

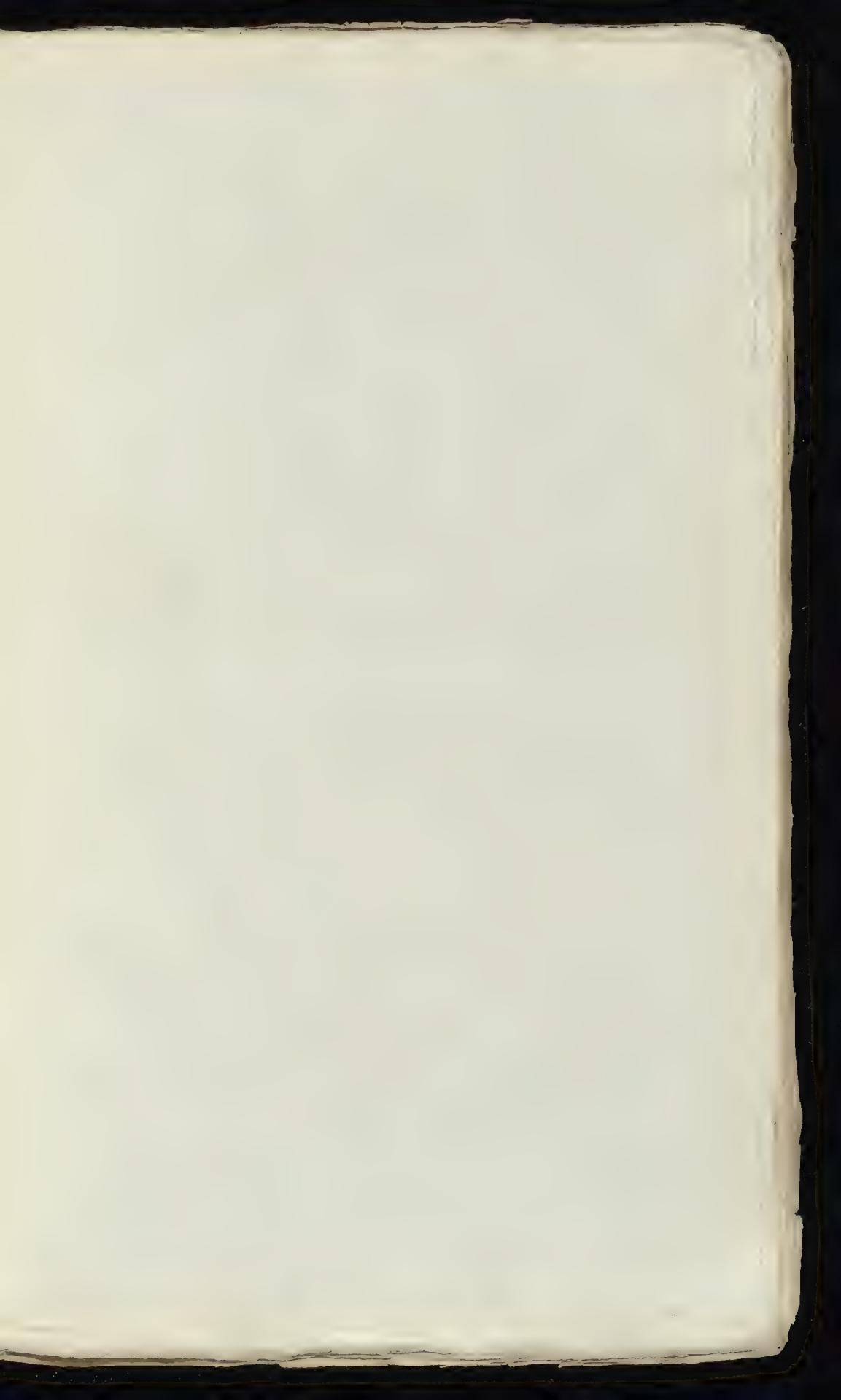
It continues to flower during the whole of the summer.

In the leaves we have a good example of the *folium mucronatum*.



Sagina procumbens





MYOSOTIS SCORPIOIDES. MOUSE-EAR SCORPION-GRASS.

MYOSOTIS Lin. Gen. Pl. PEGANDRIA MONOGYNIA.

Cal. hypocrateiformis, 5. fida, emarginata : faux clausa fornicibus.

Raii Syn. Gen. 13. HERBE ASPERITOLIA.

MYOSOTIS Scorpoides feminibus laevibus, foliorum apicibus callosis. Lin. Syst. Vegetab. Sp. Pl. p. 188.

Fl. Suec. n. 157.

SCORPIURUS radix longa fibrata perenni. Hall. hyl. 591.

MYOSOTIS Scorpoides. Scopoli. n. 185.

ECHIUM scorpioides palustre Baubin. pin. 254.

MYOSOTIS scorpioides palustris. Ger. emac, 337.

MYOSOTIS scorpioides repens. Park. 691. Raii Syn. p. 222. n. 4. Water Scorpion-Grafs.

Hudson. Fl. Engl. ed. 2. p. 78.

Lightfoot. Fl. Scot. p. 232.

RADIX per aquam longe excurrit, et fibrillas e geniculis dimitr.

CAULIS basi repens, dein erectus, pedalis aut bipedalis, teres, solidus, ramotus, glaber, sepe luteus.

FOLIA alterna, lanceolata, sessilia, subdecurrentia, glabra sive hirsuta, margine saepe revoluta.

RACEMI longi, dichotomii, divaricati, apicibus involutis.

FLORES pedunculati, secundi; pedunculis alternis, ciliatis.

CALYX: PERIANTHUM monophyllum, tubulatum, quinq; dentatum, perfractus, fig. 1.

COROLLA monopetalous, hypocrateiformis, Tubus longitudine calycis; Limbus planus, semiquinquefidus, laciniis obtusis, submarginatis; Faux clausa squamuinis quinque convexis, prominentibus, luteis. fig. 2. 3. 6.

STAMINA: FILAMENTA quinque in collo tubi, brevissima: ANTHERRÆ oblongæ, flavæ, apicibus tumidis, testæ. fig. 4.

PISTILLUM: GERMINA quatuor; STYLUS filiformis, longitudine tubi corollæ; SIGMA obtusum.

PERICARPIUM nullum, Calyx semina in situ foveans.

SEMINA quatuor, ovata, glabra, nigri cantia, nitida. fig. 5.

ROOT runs out to a great length through the water, and send down fibres from the joints.

STALK creeping at bottom, afterwards upright, from one to two feet high, round, solid, branched, smooth, but often hairy.

LEAVES alternate, lanceolate, sessile, slightly decurrent, smooth or hirsute, the edge often roll'd back.

RACEMI long, dichotomous; divaricating, the tops roll'd in.

FLOWERS standing on footstalks and growing all one way; footstalks alternate and upright.

CALYX: a PERIANTHUM of one leaf, tubular, having five teeth and permanent. fig. 1.

COROLLA monopetalous, salver-shaped, the Tube the length of the calyx: the Limb flat, divided into five blunt segments with a slight notch in each; the mouth closed with five convex prominent yellow scales or glands. fig. 2. 3. 6.

STAMINA: five Filaments, very short, placed in the neck of the tube; ANTHERRÆ oblong, yellow, the tips swelled, and enclosed. fig. 4.

PISTILLUM: GERMINA four; STYLUS thread shaped, the length of the tube of the corolla; SIGMA blunt.

SEEDVESSEL wanting, the Calyx containing and enclosing the seeds.

SEEDS four, oval, smooth, blackish, and shining. fig. 5.

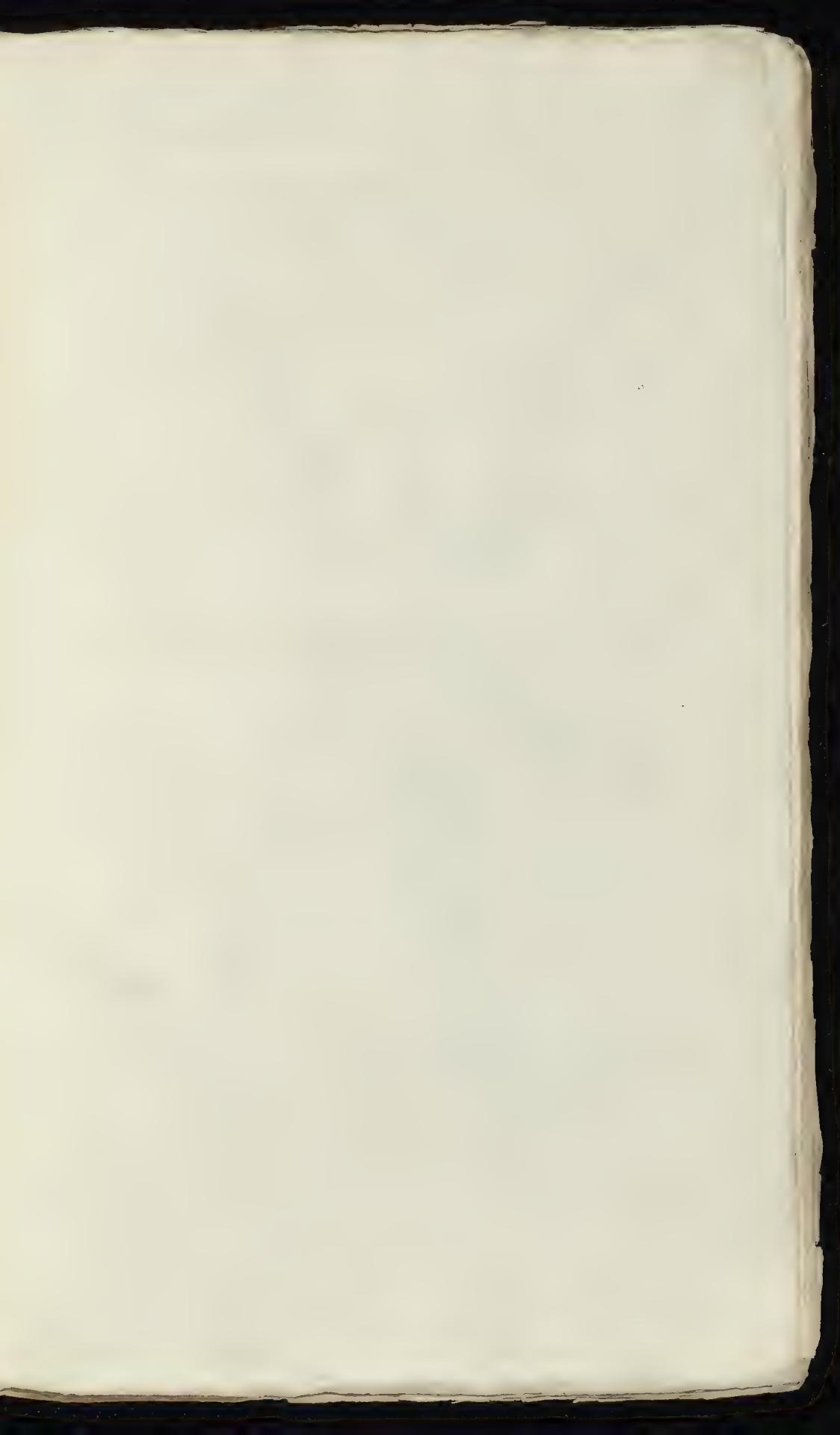
Few plants assume so great a variety of appearances as the *Myosotis scorpioides*, few accomodate themselves to such a diversity of soil, and situation; the very different habit which this plant assumes in dry, and wet situations, has induced HALLER to divide it into two species, viz. annual and perennial, the aquatic one having according to him a perennial, and the other an annual root; we might perhaps be nearly as much justified in considering some others of its striking varieties as species alio, particularly the one with yellow flowers and the larger flowered one figured by RAY, but as LINNAEUS and the generality of modern Botanists agree in considering them all but as one species, we rather chuse to acquiesce in their determination; should future observation or experiment give us any reason to suppose them species, we shall be very happy to do justice to the opinion of Baron HALLER.

The aquatic variety here figured grows very commonly in wet ditches and rivulets, its flowers especially in shady situations being much larger and more conspicuous than when growing in a dry foil are often remarked for their beauty and delicacy, they somewhat resemble blue enamel, and are a very pretty ornament for the edges of ponds.

On dry ground it usually occurs in fallow fields, and gardens but little cultivated; the variety with yellow flowers is not unfrequent on dry sandy banks, and sometimes on walls; they all flower from May to August and September.

LINNAEUS suspects its being poisonous to sheep. vid. Stillingfleet's medicinal tract. p. 355. ed. 2.







Flowers and

Aconitum napellus

LYSIMACHIA NUMMULARIA MONEYWORT.

LYSIMACHIA *Linnæi*. Gen. Pl. PENTANDRIA MONOGYNA.

Cor. rotata. Caps. globosa, mucronata, 10-valvis.

Raii Syn. Gen. 18. HERBÆ FRUCTU SICCO SINGULARI FLORE MONOPETALO.

LYSIMACHIA *Nummularia* foliis subcordatis, floribus solitariis, caule repente. *Lin. Syst. Veget. p. 165,*

Sp. Pl. p. 211. Fl. Suecic. p. 63.

LYSIMACHIA caule prostrato, foliis subrotundis, petiolis alaris unifloris. *Haller. Hist. Helv. n. 629,*

LYSIMACHIA *Nummularia*. *Scopoli. Fl. Carniol. n. 216,*

NUMMULARIA major lutea. *Baubin. Pin. 309,*

NUMMULARIA *Gerard. emac.* 630.

NUMMULARIA vulgaris. *Parkinson. 555.*

Raii. Synop. p. 283, Moneywort, or Herb Two-pence.

Oeder. Flor. Dan. Ic. 493.

Hudson. Fl. Angl. ed. 2. p. 87.

Lightfoot. Fl. Scot. p. 138.

RADIX perennis, fibrosa, fibris simplicibus, descendens.

CAULES plures, simplices, procumbentes, versus apicem repentes et subramosi, pedales et ultra, laves, geniculati, utrinque profunde caliculati, five tetragonii.

FOLIA ovato-orbiculata, opposita, erecta, glabra, subvenosa, parum undulata, petiolis brevibus, latiss., decurrentibus, infidientia.

PEDUNCULI plerumque bini, oppositi, erecti, longitudine foliorum, angulati, versus apicem sensim incrassati.

FLORES lutei, majusculi, subrotati.

CALYX: PERIANTHUM pentaphyllum, foliolis coriaceo-acutis, erectis, subcarinatis, marginibus, basi reflexis, fig. 1.

COROLLA quinquepartita, lacinias ovatis, acutis, patentibus, calyce duplo longioribus, suberosis, margine glandulosa, adhucito microscopio, fig. 2.

STAMINA: FILAMENTA quinque, subulata, erecta, glandulosæ, corollæ breviora; ANTHERA fagittatae, fig. 3, 4.

PISTILLUM: GERMEN subrotundum: STYLUS filiformis, staminibus paulo longior, nudus: STIGMA parvum, obtusum, fig. 5, 6.

PERICARPIUM plerumque abortat.

IT often happens that those plants which increase much while in flower, either by their roots or stalks, seldom produce ripe seeds: this is the case with the *Butterbur* and *Pervinkle*, as well as the present plant, on which, though I have examined a great number of specimens, I have not hitherto been fortunate enough to discover capsules ripe and perfectly formed; yet it is probable, that in some particular situations, such may be found.

The name of *Moneywort* has been given to this species from the roundness of its leaves, by which it is in one instance, distinguished from the *Lysimachia nemorum*. It grows in meadows, particularly on the edges of the ditches; also under hedges in moist situations; and is too common to need any particular place of its growth to be pointed out.

In a moist situation, no plant thrives more in a garden, nor with less trouble: it continues a long while in blossom: but without this advantage, the beauty and singularity of its foliage, is sufficient to recommend it.

The taste of the leaves is subastringent, and very slightly acid; hence they stand recommended by BOERHAVE in the hot scurvy, and in uterine and other haemorrhages. But their effects are so inconsiderable, that common practice takes no notice of them. *Lewis's Disp. p. 184.*

It is eaten by Kine and Sheep, not much relished by Goats, and refused by Horses. *Lin. Amæn. Acad. Pan. Suec.*

ROOT perennial and fibrous, the fibres simple, and striking downward.

STALKS numerous, simple, trailing, towards the top creeping and somewhat branched, a foot or more in length, smooth, jointed, deeply channeled on each side, or four cornered.

LEAVES of a shape betwixt ovate and round, opposite, upright, smooth, somewhat veiny, and a little waved, fitting on short broad foot-stalks, which run down the main stalk.

FLOWER-STALKS growing generally two together, one opposite the other, upright, the length of the leaves, angular, gradually enlarged towards the end.

FLOWERS yellow, large in proportion to the leaves, and somewhat wheel-shaped.

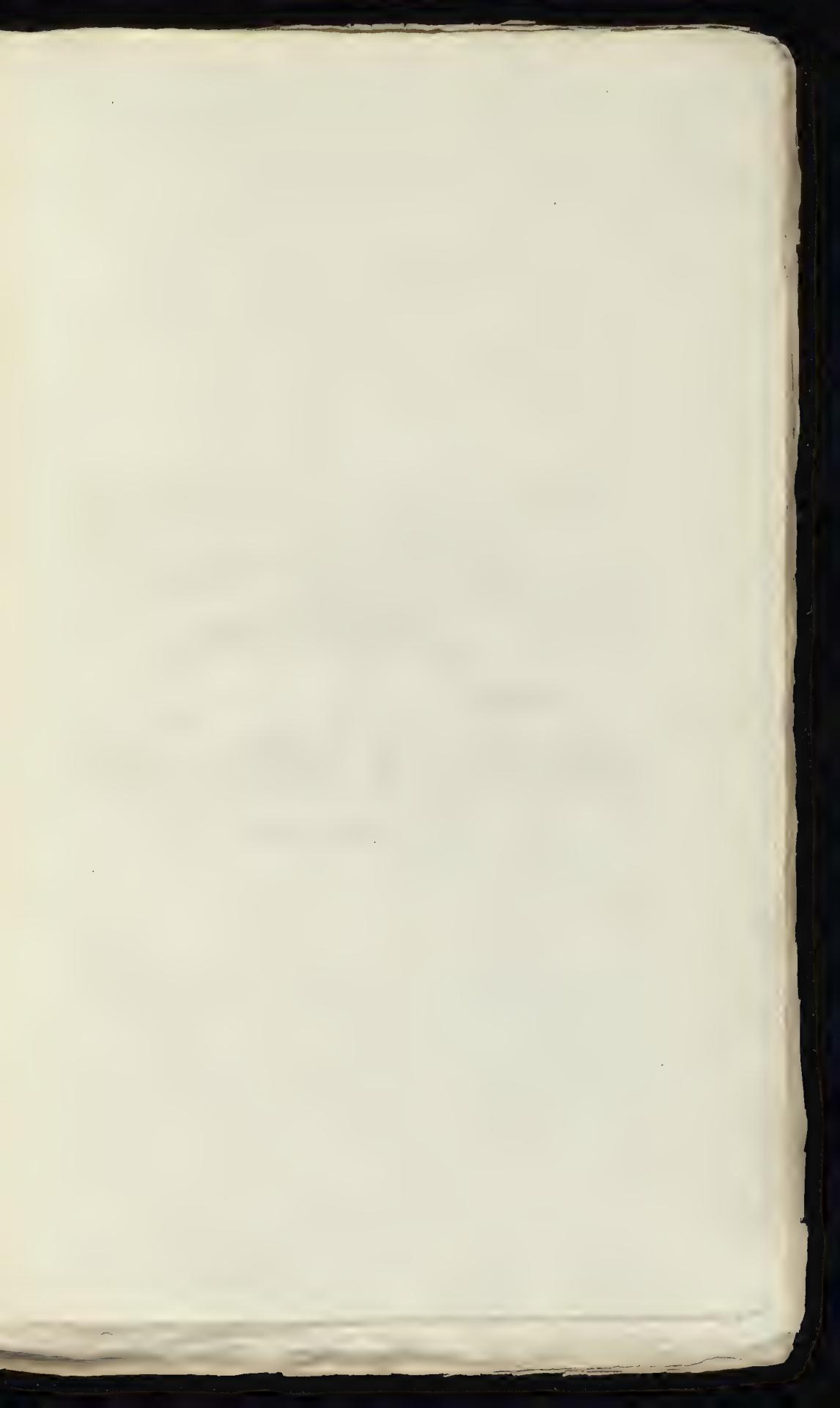
CALYX: a PERIANTHUM of five leaves, heart-shaped and pointed, somewhat keeled, the edges at bottom turning back, fig. 1.

COROLLA deeply divided into five segments, which are oval, pointed, and twice the length of the calyx, slightly jagged and glandular on the edge, if viewed with a microscope, fig. 2.

STAMINA: five FILAMENTA, tapering, upright, glandular, and shorter than the corolla: ANTHERA arrow-shaped, fig. 3, 4.

PISTILLUM: GERMEN nearly round: STYLE thread-shaped, a little longer than the stamina: STIGMA small and blunt, fig. 5, 6.

SEED-VESSEL rarely comes to perfection.





Inga allia tonella.

ANAGALLIS TENELLA. BOG PIMPERNEL.

ANAGALLIS Lin. Gen. Pl. PENTANDRIA MONOGYNIA.

Cor. rotata. Caps. circumscissa.

Raii. Syn. Gen. 18. HERBÆ FRUCTU SICCO SINGULARI FLORE MONOPETALO.

ANAGALLIS *tenella* foliis ovatis acutiusculis, caule repente. Lin. Syb. Vegetab. p. 165. Sp. Pl. 211.

LYSIMACHIA *tenella*. Hudson. Fl. Angl. ed. 2. p. 87.

ANAGALLIS *tenella* Lightfoot Fl. Scot. p. 139.

NUMMULARIA minor flore purpurascens. Baubin pin. 310. Ger. emac. 630. Park 555. Raii. Syn. p. 283. Purple-flowered Moneywort.

RADIX perennis, fibrosa.

CAULES plurimi, bipinnatipartiti aut palmares, teretes, glabri, repentes, ramosif, geniculis purpureis.

FOLIA opposita, parva, subrotunda, integerrima, utrinque glabra, petiolis brevissimis infidentia.

PEDUNCULI axillares, bini, longi, etiam pollicares, erecti, demum incurvati, simplices, uniflori.

FLORES subcampanulati, pro ratione plantæ majusculi, venis rubellis, saturatioribus picti, fig.

CALYX: *PERIANTHIUM* quinquepartitum, lacinis lanceolatis, concavis, rubro punctatis, corolla brevioribus. fig. 1. 2. 10.

COROLLA rotata, quinquepartita, lacinis ovatis, erectis, acutiusculis, carneis, venis saturatioribus irriatis. fig. 3. 4.

STAMINA: FILAMENTA quinque, alba, pilosissima, pilis albis, suberectis, articulatis: ANTERA ovata, flavæ. fig. 5 6. 7. 8.

PISTILLUM: GERMIN subrotundum; STYLUS subulatus, antheris paulo longior, STIGMA simplex. fig. 9.

PERICARPIUM: CAPSULA circumscissa, magnitudine feminis coriandri, rotunda, pallida, levius. fig. 11. 12.

SMINA plurima, subangulata, apice truncata. fig. 13. 14.

ROOT perennial and fibrous.

STALKS numerous from two to four inches long, round, smooth, creeping, branched, the joints purple.

LEAVES opposite, small, nearly round, entire at the edge, smooth on both sides, sitting on very short foot-stalks.

FLOWER-STALKS growing in pairs from the axæ of the leaves, even an inch in length, upright, but finally bent downward, single, and supporting one flower on each.

FLOWERS somewhat bell-shaped, rather large for the size of the plant, of a reddish colour, and painted with deeper colour'd veins. fig. 3. 4.

CALYX: a *PERIANTHIUM* deeply divided into five segments, which are lanceolate, concave, dotted with red, and shorter than the corolla. fig. 1. 2. 10.

COROLLA wheel-shaped, deeply divided into five segments, which are ovate, upright, a little pointed, of pale red, striped with veins of a deeper colour. fig. 3. 4.

STAMINA: five FILAMENTA, of a white colour and very hairy, the hairs upright, white also and jointed; ANTERA ovate and of a yellow colour. Fig. 5 6. 7. 8.

PISTILLUM: GERMIN roundish; STYLE tapering, a little longer than the Antheræ; STIGMA simple. Fig. 9.

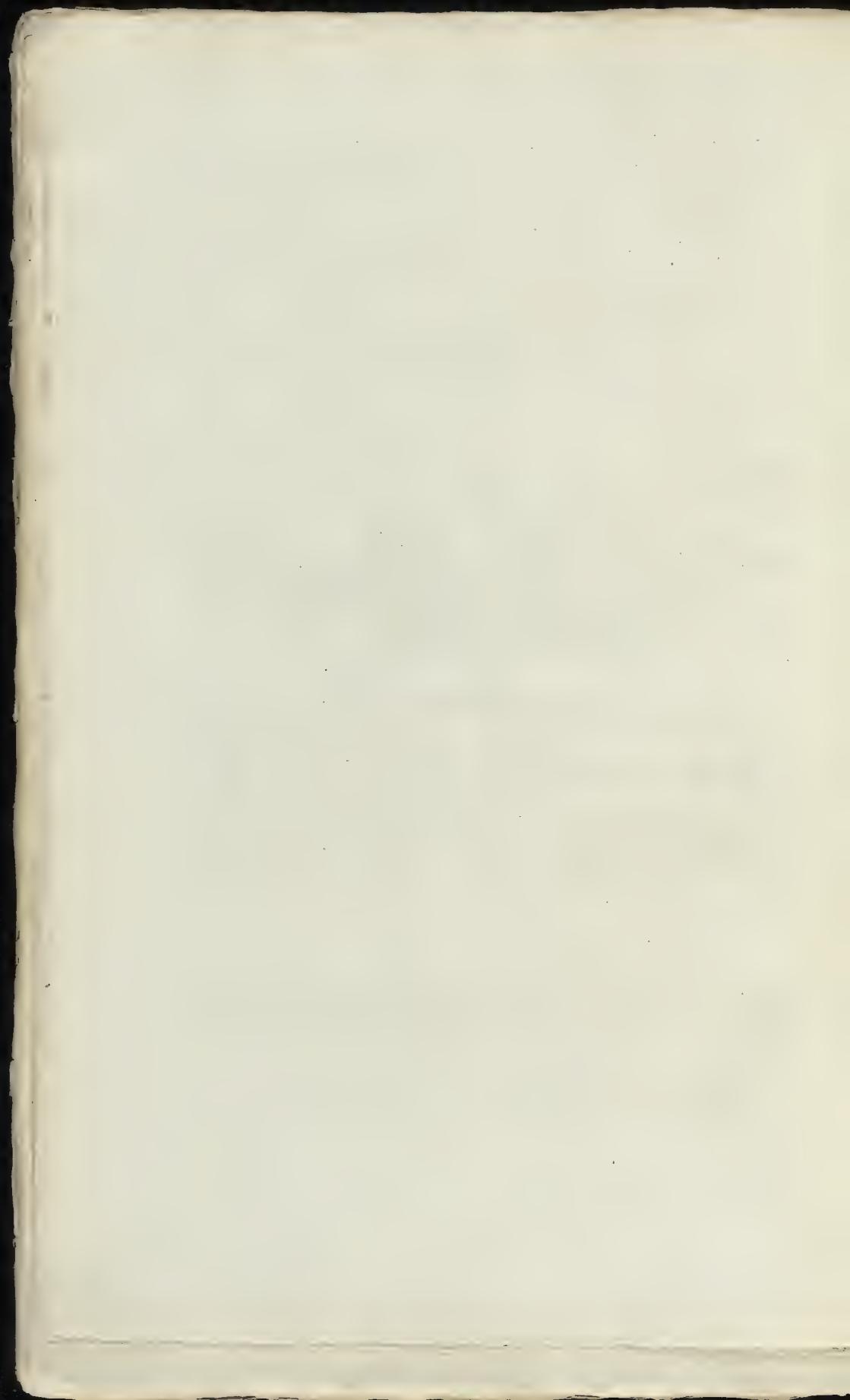
SEED VESSEL: a round CAPSULE, smooth, of a pale colour, about the size of a Coriander seed, splitting horizontally in the middle. Fig. 11. 12.

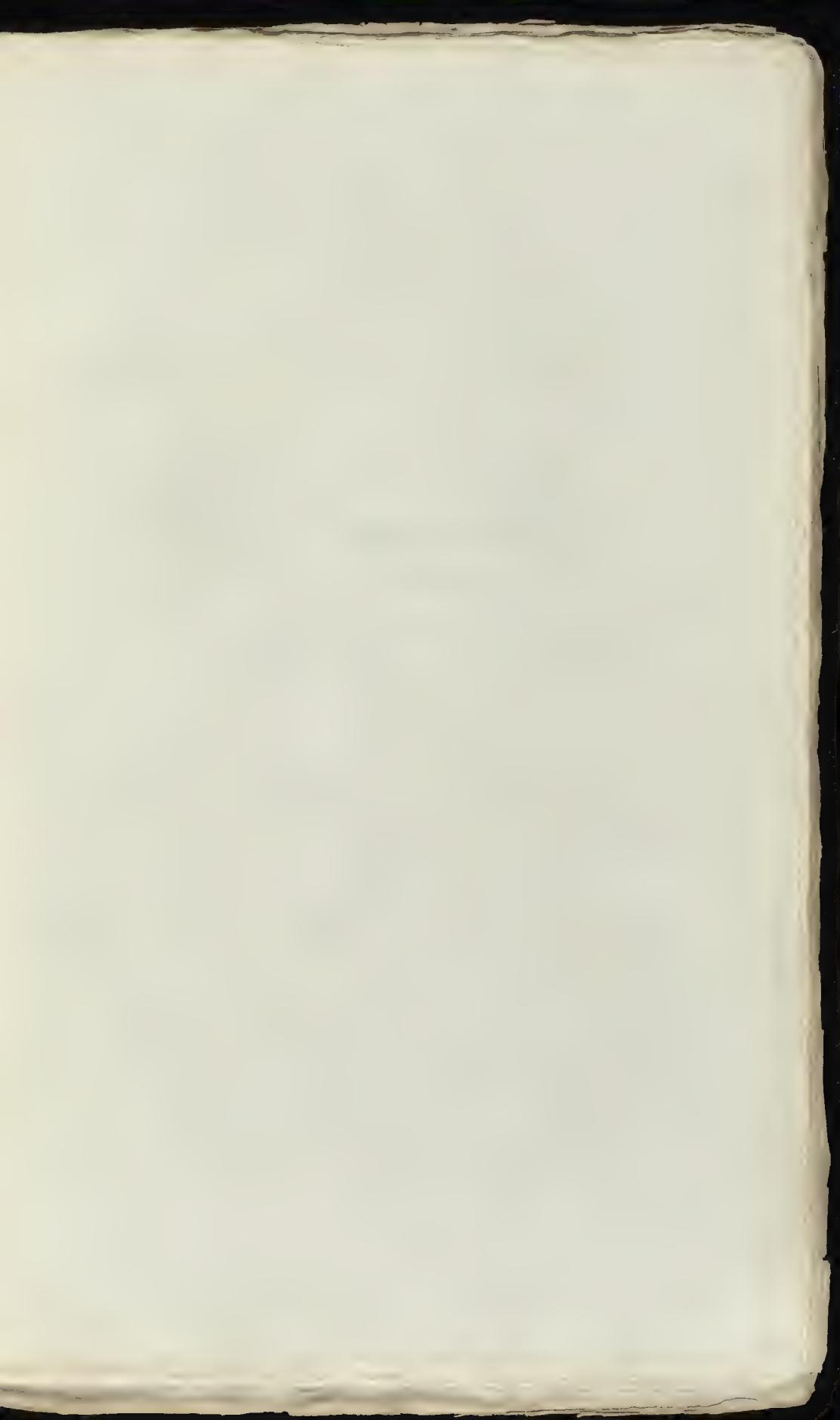
SEEDS numerous, somewhat angular and cut off at top. Fig. 13. 14.

IF the horizontal division of the capsule, joined to the hairiness of the filaments, be the characters which constitute the Genus *Anagallis*, this plant is undoubtedly with much propriety referred to it by LINNEUS, and removed from that of *Lysimachia* with which it was before connected; for it not only has an evident *Capsula circumscissa*, but the hairs of the filaments are also jointed, in which they resemble those of the *Anagallis arvensis* heretofore described and figured in the beginning of this work—Producing ripe capsules but sparingly, and growing in situations not always the easiest of access, it is no wonder that these discoveries should be of modern date.

Mr. HUDSON in the second edition of his *Flora Anglica* without affixing any reasons, chuses to continue it a *Lysimachia*.

It is a very common plant on Bogs, indeed there is scarce a bog of any extent on which it is not to be found, the boggy part of Shirley-Common affords it most abundantly, it flowers in the months of June, July, and August, and towards the end of the latter ripens its capsules.





VINCA MINOR. SMALL PERIWINKLE.

VINCA Lin. Gen. Pl. PENTANDRIA MONOGYNIA.

Raii Syn. Gen. 17 HERBÆ MULTISILIQUÆ SEU CORNICULATE.

VINCA minor caulis procumbentibus, foliis lanceolato ovatis, floribus pedunculatis. Lin. Syst. Vegetab. p. 209. Sp. Pl. 304.

PERVINCA caulis procumbentibus, foliis ovato lanceolatis, petiolis unifloris. Haller. Syst. 572.

CLEMATIS daphnoides minor. B. Pin. 301.

VINCA PERVINCA minor. Ger. emac. 894.

VINCA PERVINCA vulgaris. Parkins. 380. Raii Syn. p. 268. Periwinkle.

Hudson Fl. Angl. ed. 2. p. 91. Lightfoot Fl. Scot. p. 147.

RADIX perennis, repens, fibrosa.

CAULES floriferi erecti, simplices, dodrantales, aut pedales, in seipibus etiam, vepris sustentati ad altitudinem humanam quandoque evanuntur, debiles, teretes, glabri, utrinque fulco oblongo notati, peracta florescentia humi repent.

FOLIA opposita, petiolata, petiolis foliis ipsiis quadruplo brevioribus, sempervirentia, liguliflora, ovato-lanceolata, glabra, margine integririma, nuda; in caulis floriferis latius virarentia.

CAULIS FLORIFERUS unicum aut duos flores, etiam plures aliquando producit, cæruleos, purpureos, pulchellos, ocello albo, ad plenitudinem prinos.

PEDUNCULI uniflori, axillares, alterni, subtereti, foliis duplo fere longiores, teretes, glabri, purpurecentes.

CALYX: PERIANTHUM quinquepartitum, tubo corollæ triplo brevior, periftens, lacinias erectas, acutis, glabris. fig. 1.

COROLLA monopetala, hypocrateriformis; *Tubus* inferne cylindraceus, superne latior, lineis quinque insculptus, rigidulus, externe nitidus, interne villosus; *Limbus* horizontalis, quinquepartitus, lacinias apicis tubi adnatis, extrorum latioribus, oblique truncatis.

STAMINA: FILAMENTA quinque, brevissima, inflexa, retroflexa, superne dilatata; ANTHERA membranacea, obtusa, incurva, pilosa, margine utrinque farinifera. fig. 9. 10.

PISTILLUM: GERMINA duo, subrotunda, compresa corpusculi duobus ad latera nitidis, longitudine germinum; STYLUS obverse conicus, longitudine staminum; STIGMATA duo, inferius orbiculatum, planum, margine vilidum, superius capitatum, pilosum, albissimum. fig. 3. 4. 5. 6. 7. 11.

WHOEVER looks into the tube of this flower with any degree of attention, must be struck with the wisdom shewn in the formation of the parts contained within it; in all the plants I have seen I do not recollect any greater instance of care taken to preserve the tender parts of the fructification, each Antheræ is terminated by a membrane which bends over at top, and the membranes of all the Antheræ closing together, effectually exclude every thing which might injure the parts of the fructification below them, distinguishing not less by the delicacy than by the singularity of their structure. The filaments in their shape somewhat resemble a note of interrogation, the Antheræ in their structure are very similar to those of the violet, and open inwardly in the same manner: the style which in most flowers is broadest at top is here slenderest; they are two in number, but so closely united, that, without a magnifier, the division is scarce to be perceived; the stigmata, according to Linneus, are two in number; it is most probable, however, that the lowermost, which is flat with a glutinous edge, and which forms a kind of ring round the styles, is the true stigma; the top is a little elevated above the stigma, and appears like a round white ball, which, when magnified, is found to consist of a number of hairs diverging from one center, in the microscope it is a very pleasing sight; the ripe seed vessel of this plant I have not been able to discover; they are most probably rarely produced.

This species of Periwinkle varies much in the colour of its blossoms, which are sometimes purple, sometimes of a pale blue colour, and sometimes white; in the gardens it is also sold with divers sorts of variegated foliage and double blossoms.

At the foot of a shelter'd hedge expos'd to the morning sun, it flourishes very much, especially if the soil be moist, and affords a very pretty ornamental flower in the spring months, nor is it so fugacious as many, but will continue in blossom a month or six weeks.

It may probably be found wild in divers places about London; as yet, however, I have noticed it in one spot only, viz. in the hedge of a field on the left hand side of Lordship Lane near Dulwich, where it had every appearance of being in a wild state.

ROOT perennial, creeping and fibrous.

STALKS producing the flowers, are upright, simple, from nine inches to a foot in height, and sometimes in hedges supported by the bushes, they are raised to the height of six feet, weak, round, smooth, marked on each side with a groove faintly impressed, when out of bloom creeping on the ground.

LEAVES opposite, standing on footstalks four times shorter than the leaves themselves, evergreen, somewhat like those of Privet, oval, and pointed, smooth and shining, the edge perfectly entire, and naked, those on the flowering stalks of the most lively colour.

THE FLOWERING STALK produces one or two handsome flowers, sometimes more, of a blue or purple colour, with a white eye, and much disposed to be double.

FLOWER-STALKS supporting one flower, axillary, alternate, nearly upright, almost twice the length of the leaves, round, smooth and shining.

CALYX: a PERIANTHUM deeply divided into five segments, three times shorter than the corolla, permanent, the segments upright, pointed and smooth. fig. 1.

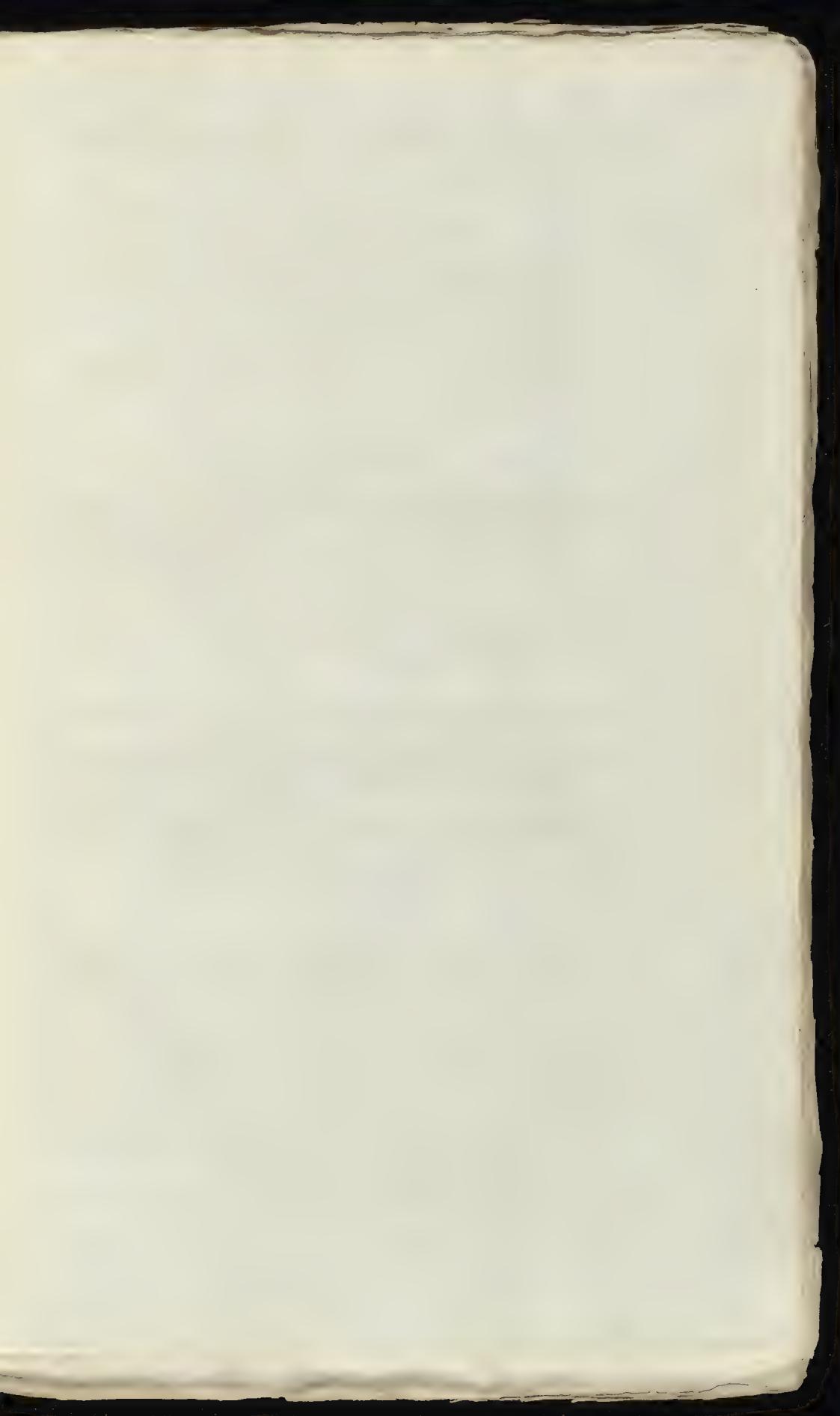
COROLLA monopetalous, salver-shaped; *Tube* below cylindrical, above spreading, having five grooves, somewhat rigid, externally shining, internally villous; *Limbus* horizontal, deeply divided into five segments, which appear to grow to the top of the tube, externally broadest and cut off obliquely.

STAMINA: five FILAMENTS, very short, bent in, and afterwards back again, dilated above; ANTHERA membranous, blunt, bent in, hairy, producing its farina on each side of the edge.

PISTILLUM: GERMINA two, roundish, somewhat flattened at the sides by two shining corpuscles of the length of the germina; STYLE inversely conical, the length of the stamina; STIGMATA two, the lowermost orbicular, flat, and clammy on the edge, the uppermost forming a little tuft of very white hairs.



Sanson & Lata



CHENOPODIUM BONUS HENRICUS. GOOD KING HENRY.

CHENOPODIUM. Lin. Gen. Pl. PENTANDRIA DIGYNIA.

Cal. 5 phyllus, 5 gonus, Cor. o. Sem. 1. lenticulare, superum.

Ros. Syn. Gen. 5. HERBÆ FLORE IMPERFECTO SEU STAMINEO VEL APETALO POTIUS.

CHENOPODIUM Bonus Henricus foliis triangulari sagittatis integrerrimis, spicis compositis aphyllis axillaribus. Lin. Syst. Vegetab. p. 216. Sp. Pl. p. 318. Fl. Suec. n. 214.

CHENOPODIUM foliis triangularibus, undulatis, integrerrimis, subtus farinosis. Haller. hist. n. 1578.

CHENOPODIUM Bonus Henricus. Scopoli. Fl. Carn. 278.

LAPATHUM unctuosum iolio triangulo Baub. pin. 115.

BLITUM perenne. Bonus Henricus dictum. Bonus Henricus J. B. II. 965. Ger. emac. 329.

LAPATHUM unctuosum. Park. 1225. Rau Syn. p. 156. common English Mercury, or All-good.

Hudson Fl. Angl. ed. 2. p. 104. Lightfoot Fl. Scot. p. 147.

RADIX perennis, ramosa.

CAULIS pedalis, ad sesquipedalem, erectus, ad basim teres, laxis, superne striato-angulatus, farinosa diaphana adperius, ramosus.

FOLIA petiolata, alterna, sagittato-triangularia, levia, subtus venosa, pallidiora, et farinosa, subundulata, integrerrima.

SPICA florum terminalis, lutescens, conica, nuda, pulvinata, inferne composta, superne glomerata, cylindrica.

CALYX: PERIANTHIUM monophyllum, quinquepartitum, laciniis subcuneiformibus, concavis, margine membranaceis, apice dentato erosis. fig. 1.

COROLLA nulla

STAMINA: FILAMENTA quinque, subulata, calycis paulo longiora; ANTHÈRÆ subrotundæ, dimidya, flavae. fig. 2.

PISTILLUM: GEREM ovatum, compressum; STYLUS nullus; STIGMA bipartitum, tripartitum, aut etiam quadripartitum, lacinis acuminatis, albidis, patentibus. fig. 4.

PERICARPIUM nullum, calyx continens semen unicum, majusculum, subreniforme, compressum, calycem excendens, epidermide tenui obtectum. fig. 5.

FLORES FEMINEI, plurimi, intra hermaphroditos.

ROOT perennial and branched.

STALK from a foot to a foot and a half in height, at bottom round and smooth, upwards finely grooved, and somewhat angular, covered with transparent powdery globules, and branched. LEAVES standing on footstalks, alternate, triangularly arrow-shaped, smooth, underneath veiny, of a paler colour and mealy, somewhat waved, and entire at the edge.

SPIKE of flowers terminal, yellowish, conical, naked, mealy, below branched, above clustered and cylindrical.

CALYX: A PERIANTHIUM of one leaf, deeply divided into five segments, which are somewhat wedge-shaped, concave, membranous at the edge, and jagged at top. fig. 1.

COROLLA wanting.

STAMINA: five FILAMENTA tapering, a little longer than the calyx; ANTHÈRÆ roundish, double, and yellow. fig. 2.

PISTILLUM: GEREM ovate, flattened; STYLE wanting; STIGMA divided to the base into two, three, or four segments, which run out to a point, are of a whitish colour, and spreading. fig. 4.

SEED-VESSEL wanting, the calyx containing a single seed, large, somewhat kidney-shaped, flattened, exceeding the calyx, and covered with a fine skin. fig. 5.

FEMALE FLOWERS numerous among the hermaphrodite ones.

Several plants of the Orach and Gooffoot kind are gathered while young and tender by the poorer sort of people to supply the place of Spinach and other greens, one of them is the present plant, whose excellency as a pot-herb seems not to be so generally known as it deserves; at Boston in Lincolnshire, and probably in many other places in the kingdom, they are sensible of its value, it is there universally cultivated, every one possessing the least spot of ground has his plantation of English Mercury; by them it is considered as superior to Spinach, and always preferred to it, yet, strange to tell! this usefull herb is unknown to the greatest Herb-market in the world, Covent-Garden.

To produce this desirble plant in its greatest perfection, sow the seed about March on a deep loamy soil prepared as for Asparagus, let the seedlings continue to grow till Autumn, about the middle of September, taking advantage of a wet season, set them out on a bed similar to that on which they were sown, about a foot apart, keep them clear of weeds, and the ensuing Spring and Summer the plant will afford an abundant crop, the young shoots with their leaves and tops are to be cut as they spring up, and being a perennial plant it will continue thus plentifully to produce for a great number of years; in the winter the bed is to be covered with dung, which should be raked off as the Spring advances, when the earth around the roots is carefully to be dug or forked up.

As a medicine this herb is ranked among the emollients, but rarely made use of in practice; the leaves are applied by the common people for healing slight wounds, cleansing old ulcers, and other like purposes.

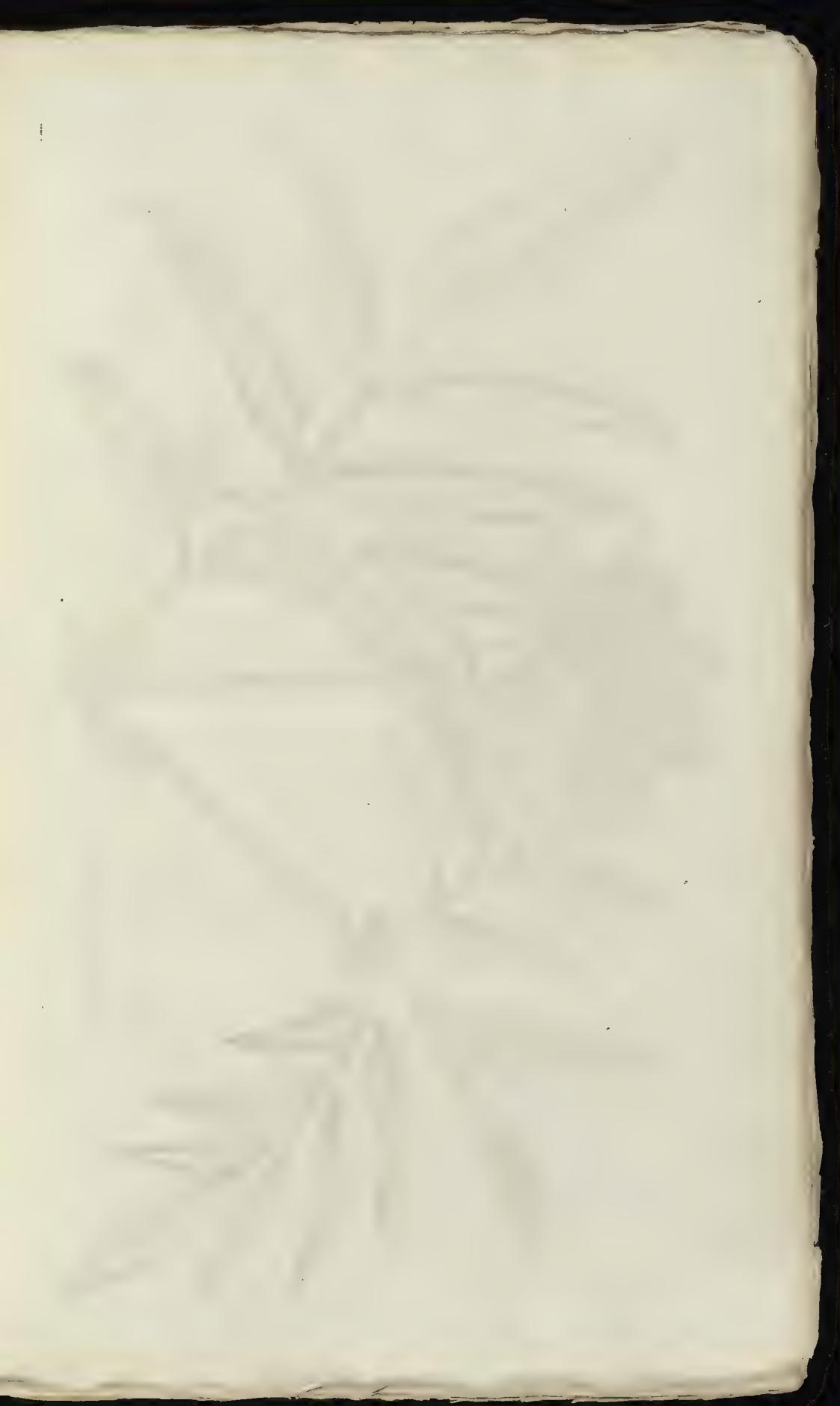
It grows in uncultivated places, by road-sides, and particularly in the environs of Farm-yards, like most of the same genus appearing to be fond of dung; it produces both flowers and seeds from May to August.

From all the other Chenopodiums it differs in having a perennial root.

The name by which it is most commonly called is that of Mercury, a name which tends to confound it with the other Mercuries (*Mercurialis annua*, and *perennis*) and which it were better if possible to get rid of by using the old botanic name of Good King Henry.



Chenopodium Bonus Henricus





Hamamelis Cerasifera.

SAMBUCUS E BULUS. DWARF ELDER.

SAMBUCUS Lin. Gen. Pl. PENTANDRIA TRIGYNIA.

Cal. 5-partitus. Cor. 5-fida. Bacc. 3-sperma.

Raii Syn. Gen. ARBORES ET FRUTICES.

SAMBUCUS Ebulus cymis tripartitis, stipulis foliaceis, caule herbaceo. Lin. Syb. Veget. p. 244.
Sp. Pl. p. 385. Fl. Suec. n. 266.

SAMBUCUS herbacea; floribus umbellatis. Haller. hifl. n. 671.

SAMBUCUS Ebulus. Scopoli Fl. Carn. n. 371.

SAMBUCUS humilis seu Ebulus. Baub. Pin. 456.

EBULUS sive Sambucus humilis. Ger. emac. 1426. Parkins. 209. Raii Syn. 461. Dwarf-Elder,
Walwort, or Danewort.

Hudson. Fl. Angl. ed. 2. p. 130.

Lightsfoot. Fl. Scot. p. 171.

RADIX repens, vix eradica.

CAULIS orgyalis, herbaceus, teretiusculus, glaber,
undique striato-fuscatus, subgeniculatus: ge-
niculis purpureis, superne ramosus, ramis
oppofitis, erectis.

FOLIA opposta, pinnata, quadrifida, seu sexifida,
cum impari, stipulata seu exstipulata, foliolis
ovato-lanceolatis, basi inaequalibus, ferratis,
venosis, supra glabris, subtus pubefcenti-fa-
bris, pallidioribus, inferioribus sepe lobato-
incisis.

STIPULÆ quaternæ, petiolatae, subcordatae, ferratae,
superioribus sepe recurvatis.

CORYMBUS terminalis, tripartitus, ramis subnudis,
exterioribus teretiusculis, intermedio com-
preflo; compotitus e cymis pluribus pedun-
culatis, nudis; floribus pedicellatis.

CALYX: PERIANTHUM monophyllum, superum,
quinq[ue]dentatum, dentibus ovato-acutis, e-
rectis, purpureis. fig. 1.

COROLLA monopetala, rotata, quinquepartita, la-
ciniis ovato-acutis, concavis, reflexis, externe
ad apicem purpurascensibus et rugosis. fig. 2.

STAMINA: FILAMENTA quinque, subcrecta, te-
tiuscula, crassa, rugosa, alba, longitudine
corolla; ANTHERE pumum rubicundæ, magna,
didymæ, fusi invicem paululum remo-
tae, parallelae, oblongæ, supra fulcatae, de-
num nigricantes. fig. 3.

PISTILLUM: GERMIN inferum, subovatum, obfolete
angulatum, glabrum; STYLUS nullus; STIG-
MATA tria, subreniformia, colorata, glut-
nosa. fig. 4. 5.

ROOT creeping, scarce to be eradicated.

STALK six feet high, herbaceous, roundish, smooth,
channeled, joints somewhat enlarged, pur-
plish, branched above, the branches opposite
and upright.

LEAVES opposite, pinnated, having four or six pair
of pinnæ with an odd one at the extremity,
with or without stipulae, the pinnæ or small
leaves ovato-lanceolate, unequal at the base,
ferrated, veiny, smooth above, downy with
a slight roughness underneath, and whiter,
the lowermost often cut into lobes.

STIPULÆ growing in fours, standing on foot-stalks,
somewhat heart-shaped, ferrated, the upper-
most often bent back.

CORYMBUS terminal, divided into three branches,
which are somewhat naked, the outer ones
roundish, the middle one flattened, composed
of numerous cymes, standing on partial foot-
stalks, blossoms also furnished with foot-
stalks:

CALYX: A PERIANTHUM of one leaf, placed above
the germin, having five teeth, which are
short, broad, pointed, upright and purple.
fig. 1.

COROLLA A monopetalous, wheel-shaped, divided in-
to five segments, which are ovate, pointed,
hollow and turn'd back, externally at the tip
purple and wrinkled. fig. 2.

STAMINA: five FILAMENTA, nearly upright, round-
ish, thick, wrinkled, white, the length of
the corolla; ANTHERE first reddish, large,
double, at a little distance from each other,
parallel, oblong, grooved above, latty be-
coming of a blackish colour. fig. 3.

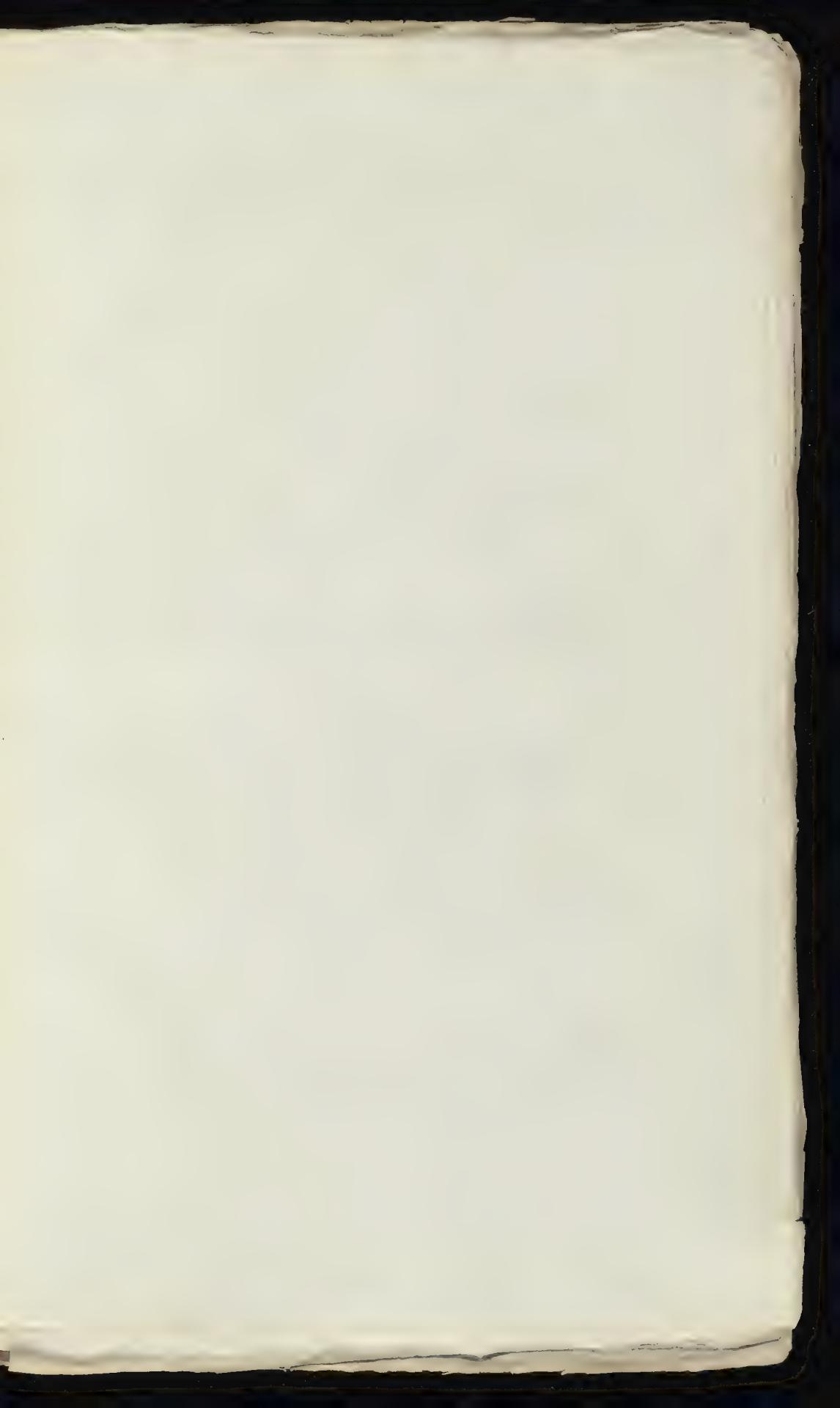
PISTILLUM: GERMIN placed below the corolla,
somewhat ovate, faintly angular, and smooth;
STYLE none, STIGMATA three, somewhat
kidney-shaped, coloured, and glutinous.
fig. 4. 5.

THE leaves, roots, and bark of the dwarf Elder have a nauseous, sharp, bitter taste, and a kind of acrid
unguentall smell; they are all strong cathartics, and as such are recommended in Dropies, and other cafes
where medicines of that kind are indicated. The bark of the root is said to be the strongest; the leaves the
weakest; but they are all too churlish medicines for general use: they sometimes evacuate violently upwards,
almost always nauseate the stomach and occasion great uneasiness of the bowels: by boiling they become like
the other diastics milder and more safe in their operation; the berries of this plant are likewise purgative, but less
virulent than the other parts: a rob prepar'd from them may be given to the quantity of an ounce as a cathar-
tic; and in smaller ones as an aperient and deobstruent in chronic disorders. In this last intention it is said by
HALLER to be frequently used in Switzerland in the dose of a dram. LEWIS's Diff. p. 137.

In most Phyti Gardens this plant is cultivated, but is rarely met with wild about London; I have observed
it two places only, the one in a hedge which surrounds a part of Mr. BEAUVILLE'S Garden, Cuper's-Bridge,
Lambeth Marsh, the other in a Lane leading down to Upton, Essex, by the garden wall of the late
Dr. FOTHERGILL.

It differs from the common Elder in many respects, particularly in being herbaceous, and in having a root
which creeps and is very troublesome in gardens, its leaves also are narrower with more numerous pinnæ attached
to the mid-rib; the lower pinnæ of which are subject to a singular variation as is shewn in the figure.

Not less does it differ in its fructification as will appear from the description to which the reader is referred,
It flowers in June and July, and but rarely ripens its berries.



LINUM CATHARTICUM. PURGING FLAX.

LINUM Lin. Gen. Pl. PENTANDRIA PENTAGYNIA Cal. 6 phyllus. Pet 5. Caps 5. valvis, 10 locularis. Sem. solitaria.

Raii S; n. Gen. 24. HERBÆ PENTAPETALÆ VASCULIFERÆ.

LINUM catharticum foliis oppositis, ovato-lanceolatis, caule dichotomo, corollis acutis. Lin. S; f. Vegetab. p. 250. Sp. plant. p. 401. Fl. Suecic. p. 100.

LINUM foliis conjugatis, ovatis, calycibus aristatis, patulis, lanceolatis. Haller Hjfl. n. 839.

LINUM catharticum. Scopoli. Fl. Carn. n. 389.

LINUM pratense flosculis exiguis. Baubin. pin. 214.

LINUM sylvestre catharticum. Ger. emac. 560. Parkinson. 1336. Raii Syn. p. 362. purging or wild Dwarf-Flax or Mill-mountain.

Lightfoot Fl. Scot. p. 174.

Hadjon. Fl. Angl. ed. 2. p. 134.

RADIX annua, fibrofa.

* ROOT annual, and fibrous.

CAULIS palmaris aut dodrantalis, erectus, teres, lœvius, superne ramosus.

* STALK from three to nine inches high, upright, round, smooth, branched at top.

FOLIA opposita, elliptica, suberecta, lœvia, integerim, glauca, in summis ramis alterna, lanceolata.

* LEAVES opposite, elliptical, nearly upright, smooth, perfectly entire, glaucous, on the tops of the branches alternate, and lanceolate.

FLORES albi, ante anthesin penduli.

* FLOWERS white, before they blow pendulous.

CALYX: PERIANTHİUM pentaphyllum, perfistens, foliolis lanceolatis, erectis, carinatis. fig. 1.

* CALYX: a PERIANTHİUM of five leaves and permanent, the leaves lanceolate, and upright, with a prominent midrib. fig. 1.

COROLLA pentapetala, petalis Calyce duplo longioribus, patentibus, ovatis, acutis, prope batin leviter coherentibus, trinervibus, unguibus flavis. fig. 2.

* COROLLA composed of five petals, which are twice the length of the Calyx, spreading, oval and pointed, slightly uniting at the base, having three ribs and yellow claws. fig. 2.

STAMINA: FILAMENTA quinque æqualia, subulata, bafi latiora, subcoalescentia; ANTERÆ subrotundæ, flavæ. fig. 3.

* STAMINA: five FILAMENTS of equal length, tapering, broadest and slightly uniting at bottom; ANTERÆ roundish and yellow. fig. 3.

PISTILLUM: GERMEN subovatum, angulatum; STYLI quinque, longitudine staminum; STIGMATA rotunda, flava. fig. 4. 5.

* PISTILLUM: GERMEN angular; STYLES five, the length of the Stamina; STIGMATA roundish, and yellow. fig. 4. 5.

PERICARPIUM: CAPSULA globosa, angulata, decompoundularis, quinquevalvis, Calyce testa, fig. 6.

* SEED-VESSEL: a round, angular CAPSULE, with ten cavities and five valves cover'd with the Calyx. fig. 6.

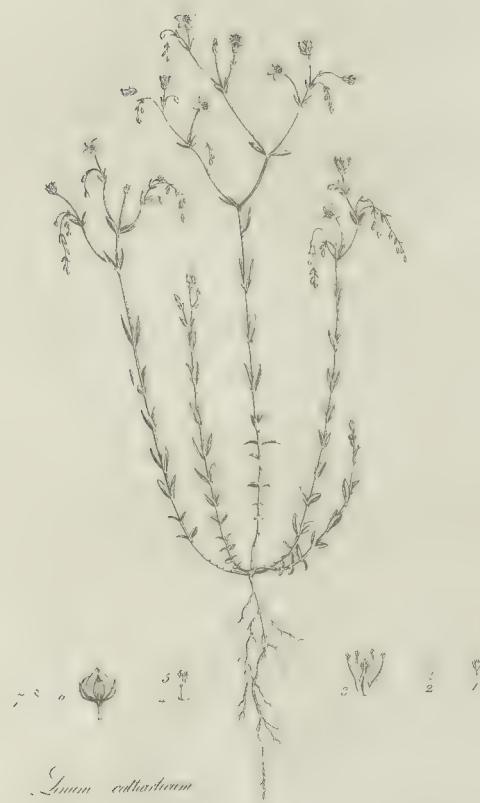
SEMINA solitaria, ovata, planiuscula, flava, nitida. fig. 7.

* SEEDS single, oval, flattish, yellow and shining. fig. 7.

THIS small and delicate species of Flax is a very common plant throughout the kingdom on hilly situations particularly where the soil is chalky, it also sometimes found in Meadows.

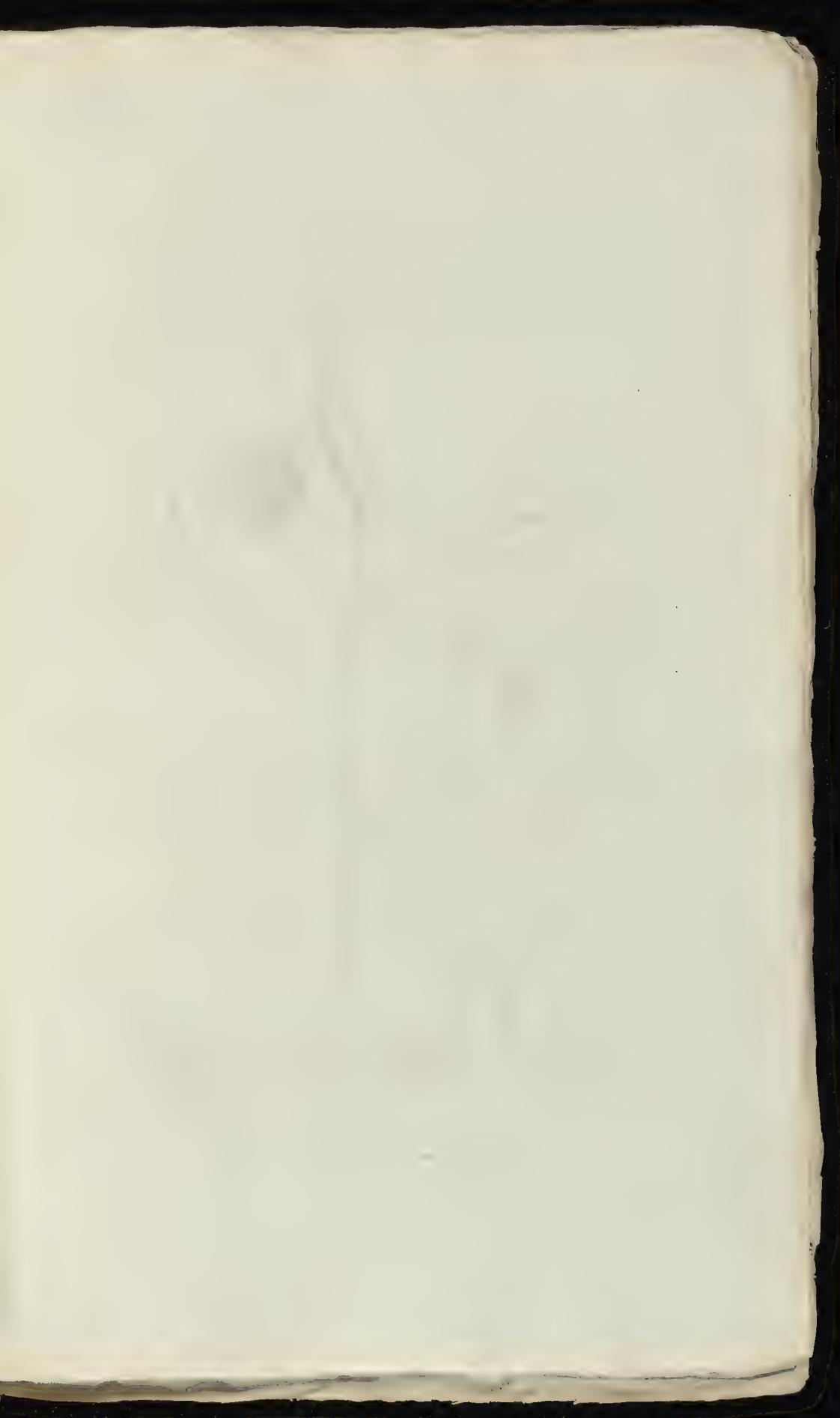
It flowers in June, July and August.

An infusion in water or whey of a handful of the fresh leaves, or a dram of them in substance when dried, are said to purge without inconvenience. Lewis Dipp. p. 168.



Linum catharticum

Linum cat.





Fritillaria Meleagris.

F R I T I L L A R I A M E L E A G R I S . C O M M O N F R I T I L L A R Y .

FRITILLARIA Lin. Gen. Pl. HEXANDRIA MONOGYNIA.

Cor. 6. petala, campanulata, supra unguis cavitate nectarifera. Stam.
longitudine corollæ.

Raii. Syn. Gen. 26. HERBÆ RADICE BULBOSA PRÆDITÆ.

FRITILLARIA Meleagris foliis omnibus alternis, caule unifloro. Lin. Syst. Vegetab. p. 269. Sp. Pl. p. 436. Fl. Suec. n. 283.

FRITILLARIA caule paucifloro foliis caulinis gramineis alternis. Haller. bijt. n. 1235.

FRITILLARIA Melagratis. Scopoli. Fl. Carn. n. 405.

FRITILLARIA præcox purpurea variegata. Baub. pin. 64.

FRITILLARIA vulgaris. Parkinson. Parad. 40.

FRITILLARIA variegata. Gerard. emac. 149. Raii. bijt. p. 1106. Hudson. Fl. Angl. ed. 2. p. 144.

RADIX: Bulbus magnitudine nucis avellanæ, solidus, albus, subrotundus, in plures separabilis, bulbo precedentis anni, marcido, rugoso in theca quasi inclusus.
CAULIS spithameus et altior, erectus, teres, simplex, levius, glaucus, haud infrequentiter purpurascens.
FOLIA caulina quatuor, aut quinque, alterna, semi-amplexicaulia, sublinearia, inferne rotundata, superne concava, subtortuosa, glauca.

FLÓS in summitate caulis unicus, magnus, pendulus, primum ovato-pyramidalis, tum campanulatus.

CALYX nullus.

COROLLA: Petala sex, ovato-oblonga, æqualia, albo et purpureo pulchre tesselata, basi gibbosæ.

fig. 1.

NECTARIUM: fovea sublinearis, virens, prope basin cuiusvis petali unde gibbi extini. fig. 1.

STAMINA: FILAMENTA sex, subulata, levia, albida, germine duplo longiora; ANTHÈRE oblongæ, subcompreæ, quadrifoliatæ, mucrone vircente instrutæ, demissæ polline duplo breviores; POLLEN flavum. fig. 2. 3.

PISTILLUM: GERMEN trigonum, viride; STYLUS teres, pubescens, superne paululum incrassatus, trifidus, lacinia teretibus, divergentibus, interne et externe ad lentem canaliculatis; STIGMATA simplicia, villosa. fig. 4. 5.

THE *Fritillaria Meleagris* is one of those plants which have been discovered to be indigenous to this country, since the time of Mr. RAY; Mr. BLACKSTONE is I believe the first who mentions it as growing in *Mavude* Fields near *Ripley* Common *Middlesex*, plentifully, and in which place it had been observed in his time for near fifty years; Mr. HUDDSON describes it as growing in the Meadows betwixt *Mortlake* and *Kew*, also near *Endfield*; Mr. CULLUM a very accurate and ingenious Botanist at *Tury St. Edmunds*, has sent me plants which he found plentifully in a wild state near that place, and this spring I received information that it was found wild in a wood belonging to Mrs. WILSON, of *Bromley* in *Kent*.

With these several authorities we may, I think with propriety, conclude that it is a real native of this Island; it is found in similar situations abroad, in *sylvis et palustribus*, vid. JACQUIN Fl. Austr. V. 5. Ap. p. 45.

The blossoms before they are fully expanded, bear some resemblance to a snake's head, whence they are called by the country people in some places *Snake's Heads*, also chequer'd *Daffodil* and *Tulip*.

If the season be mild they flower in the beginning of April, and are out of bloom in a short time.

It is only regarded as an ornamental plant, and as such has long been cultivated in gardens, in which many beautiful varieties are to be met with.

ROOT: a bulb about the size of a hazel nut, solid, white, roundish, divisible into several, inclosed by the withered, wrinkly bulb of the preceding year as in a cafe.

STALK from half a foot to a foot in height, upright, round, simple, glaucous, and not unfrequently purplish.

LEAVES of the stalk about four or five in number, alternate, half embracing the stalk, somewhat linear, round on the under and hollow on the upper side, somewhat twisted and glaucous.

FLOWER: a single blossom on the top of the stalk, large, pendulous, first somewhat pyramidal, and afterwards bell-shaped.

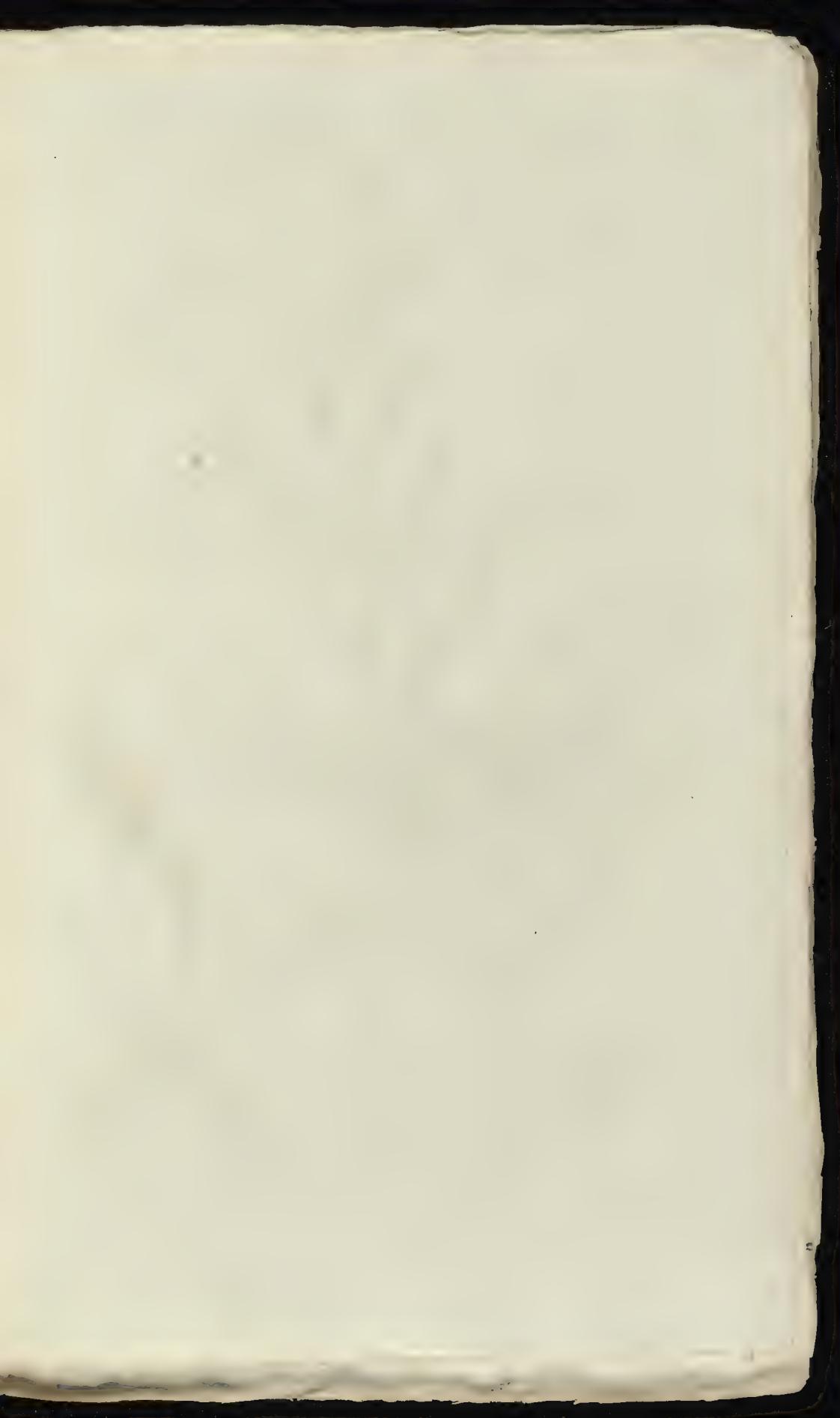
CALYX wanting.

COROLLA: six PETALS, of an oblong ovate shape, equal, beautifully chequer'd with purple and white, and gibbosæ at the base. fig. 1.

NECTARY a narrow cavity of a greenish colour, near the base of each petal, whence the external protuberances. fig. 1.

STAMINA: six FILAMENTA, tapering, smooth, whitish, twice the length of the germen; ANTHÈRE oblong, flattish, with four groves, and a greenish point at the top of each, becoming shorter by one half on the shedding of the POLLEN, which is of a yellow colour. fig. 2.

PISTILLUM: GERMEN scarce manifestly three corner'd, of a green colour; STYLE round, downy, a little thick'nd above, divided into three segments, which are round, diverging, and mark'd both internally and externally with a groove, visible with a magnifier; STIGMATA simple, villous. fig. 4. 5.





Rumex acetosa

RUMEX ACUTUS. SHARP-POINTED DOCK.

RUMEX Lin. Gen. HEXANDRIA TRIGYNIA.

Cal. 3 phyllus. Petala 3 conniventia. Semen triquetrum.

Raii Syn. Gen. 5. HERBÆ FLORÆ IMPERFECTO SEU STAMINEO VEL APETALO POTIUS.

RUMEX acutus floribus hermaphroditis; valvulis dentatis graniferis, foliis cordato oblongis acuminatis.
Lin. Syst. Veg. p. 285. Sp. Pl. p. 478. Fl. Suecic. n. 316.

LAPATHUM petiolo latifoliente, foliis lanceolatis, calyce ferrato. *Haller. hif. n. 159.*
LAPATHUM acutum. *Scopoli p. 292.*

LAPATHUM folio acuto piano. *B. pin. 115.*

LAPATHUM acutum. *Ger. emac. 388.*

LAPATHUM acutum seu Oxylapathum. *J. Baub. II. 983.*

LAPATHUM acutum majus. *Park. 1224. Raii Syn. p. 142. Sharp-pointed Dock.*
Hudson. Fl. Angl. ed. 2. p. 155. Lightfoot Fl. Scot. p. 188.

RADIX perennis, crassitie digitii minimi aut major, in terram profunde penetrans nec facile extracta, simpliciter in junioribus, in adultis ramosa, foris flavo fusca, cortice interne flavescente, mulilla albida.

CAULIS bipedalis, atripedalem, crassitie pennæ anserinæ, terestris striatus, rubens, ramosus, superne flexuoso, rigidus, geniculis stipulis obfoletis tecdis.

RAMI cauli similes, stentes, longiusculi, inferne foliosi.

FOLIA inferiora oblongo-ovata, acuta, basi subcordata, plana, longidine uncias quinque, latitudine duas, margini crenulato-criffo, subtus fibris plurimis mitte reticulata, caulina fapio undulata, attaen multo minus quam in rumice criffo.

FLORES parvi, numerosi, circa ramulos semiverticillati dispositi, que alterne, penduli.

PEDUNCULI filiformes, ad basin geniculati.

CALYX: PERIANTHUM triphyllum, foliolis minimis, subfeteaceis, cavis, rigidulis, persiftentibus.

COROLLA Stamina e Pifillum, cum nullam notam praebant huic speciei peculiarem, ad valvulas femen matutin continentes præterimus, ob quibus certe facile distinguuntur.

VALVULÆ minima d valvulas aliorum Rumaticum nostratum comparantur, calyce duplo longiora, oblong obtusifolæ, integerrimæ, unicâ idque extremera semper granifera, reliquis plerumquinudis, ex apice granula per medium valvi decurrit linea prominula et utrinque venisliquo ope lenti solummodo distinguui possum. Granula primaria oblonga, demum rotund prominula, in umbrosis palide, in apicis bimaculata.

SEMINUM unicum, triquæ, flavescens.

Fig. 1 Calyx. 2 Corolla. 3 Stamina. 4 Pifillum. 5 Valvula cum granis immaturis. 6 Semen.

ROOT perennial, the thickness of the little finger, or larger, penetrating deeply into the earth, and not easily drawn out, in the young ones simple, in the full-grown ones branched, externally of a yellowish brown colour, the inside of the bark yellowish, the pith whitish.

STALK from two to three feet high, the thickness of a goose quill, round, striated, reddish, branched, on the upper part crooked, rigid, the joints covered with obsolete stipules.

BRANCHES like the stalk, spreading, longish, on the lower part leafy.

LEAVES at the bottom of the stalk of an oblong, oval shape, pointed, at the base somewhat heart-shaped, flat, about five inches in length and two in breadth, the edge notched, and somewhat curled, underneath finely reticulated with numerous fibres, those on the stalk usually waved, but much less so than in the curled dock.

FLOWERS small, numerous, disposed about the branches in half whorls, and that alternately, hanging down.

FLOWER-STALKS filiform, with a joint at the base, CALYX: a PERIANTHUM composed of three leaves, which are very small, narrow, pointed, hollow, somewhat rigid and permanent.

COROLLA Stamina and Pifillum having nothing in them very peculiar, we pass on to the valves containing the ripe seed, which afford the principal marks characterizing this species.

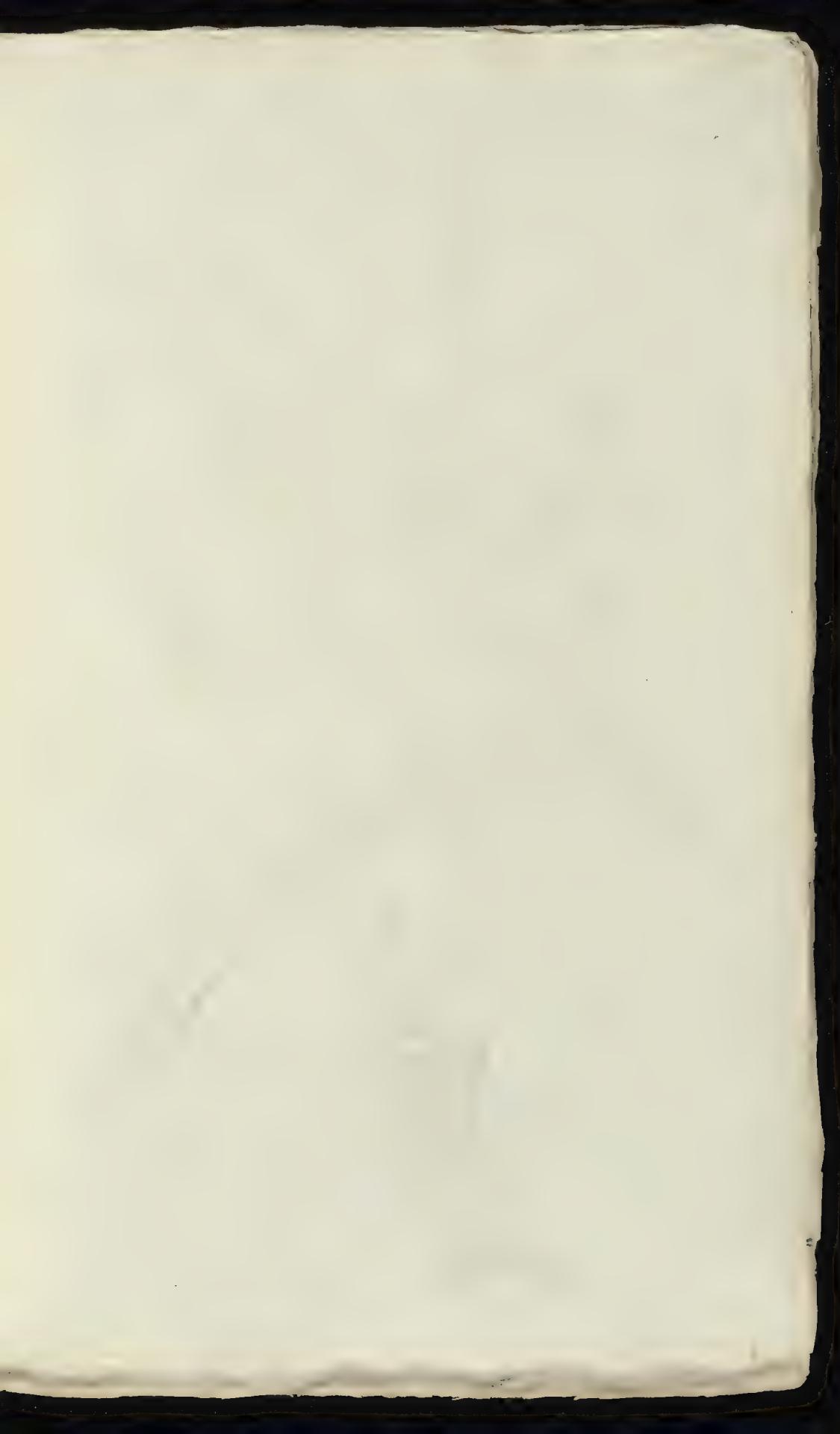
VALVES very small if compared with the valves of our other Docks, twice the length of the calyx, oblong, bluntnish, entire at the edge, one and that the outer one always bearing a granule, the others generally naked, i. in the top of the granule through the middle of the valve runs a prominent line, on each side of which, by the help of a glass only, may be discerned a few veins; Granules at first oblong, finally becoming round and prominent, in the shade pallid, in exposed situations very red.

SEED single, three-cornered, and yellowish.
Fig. 1 The Calyx. 2 the Corolla. 3 the Stamina. 4 the Pifillum. 5 the Valves with the granules unripe. 6 the Seed.

The *Rumex acutus*, like *Rumex maritimus*, is a plant by no means well understood, either by Botanists or Simplers, both of which their turn mistake it for some other species; this I should not assert, had I not seen frequent instances of such mistakes: fortunately it has a character which need only to be pointed out to make this species as obvious as any of our other Docks; the species to which the *Rumex acutus* at first sight has the greatest resemblance, are *crispus*, the *pulcher*, and the *maritimus*, the first of these is characterized by having its leaves very much ed, its feed valves almost round, entire and very large, so that they nearly hide the branches, in this the leaves much less curled, the feed-valves, although entire at the edge, are altogether as small as in the *crispus* they large, and instead of being roundish are of an oblong shape, the whole plant is more fine and delicate and the leaves more spreading; from the *pulcher* and *maritimus* it is at once distinguished, by having the edges of its valvulae, which in those are toothed.

The sharp-pointed Dock is not confined to any particular place of growth, it is found not only in woods, hedge-rows, and hedges, but also the sides of rivers and roads; in fields and meadows it is less frequent; Camberwell Grove is at present a good spot for it; it flowers in June and July. The *Rumex Janguineus* differs in no respect from the present plant, but the colour of its veins, on this account I consider it merely as its variety.

It is the more necessary the Dock here figured should be thus pointed out, as it is an officinal plant, and considered as useful in the co^r scorbatic and cutaneous disorders, both exhibited internally, and applied externally in ointments, cataplasm and fomentations.





RUMEX OBTUSIFOLIUS. BROAD LEAVED DOCK.

RUMEX *Linnæi Gen. Pl. HEXANDRIA TRICYNIA,*

Cal. 3 phyllus. Petala 3 conniventia. Sem. 1 triquetrum.

Raii Syn. Gen. 5. HERRÆ FLORE IMPERFECTO SEU STAMINEO VEL APETALO POTIUS.

RUMEX *obtusifolius* floribus hermaphroditis, valvulis dentatis graniferis, foliis cordato-oblongis obtusis pubescens. *Lin. Syst. Vegetab.* p. 285. *Sp. Pl. 478. Fl. Suecic.* n. 315.

LAPATHUM foliis ovatis, circa petiolam emarginatis, floribus dense paniculatis, dentatis, verrucosis. *Haller. Hist. Hebd.* n. 1592.

LAPATHUM vulgare foli obtuso. *J. B. II. 984.*

LAPATHUM sylvestre, folio subrotundo. *Baub. p. 115.*

LAPATHUM sylvestre, folio minus acuto. *Ger. emac. 388.*

LAPATHUM sylvestre vulgatus. *Park. 1225.*

Raii Syn. p. 141. The most common broad leaved wild Dock.

Hudson. Fl. Angl. ed. 2. p. 155. Lightfoot Fl. Scot. p. 189.

RADIX perennis, in terram alte et recte descendens, fusiformis, crassitie digitii intermedii, foris foridie fusca, intus flavescens, in junioribus simplex, in annosis multiplex, ramosus.

CAULIS tripedalis, erectus, ad basin usque ramosus, teres, lavis, superne scabriuscus, fulcatus, solidus, geniculatus, geniculis stipulis obsoletis, marcescentibus vestitis.

FOLIA radicalia, cordata ovata, petiolata, obtusiuscula, subtus venosa, nervo medio lepidis ruberrimo, caulinis acuta, subundulata.

PETIOLI subtus rotundati, superne plano-concavi.

RACEMI florum axillares, suberecti, nudiusculi.

CALYX: PERIANTHUM triphyllum, folioli lanceolato-linearibus, concavis, margine membranaceis, corollâ brevioribus.

COROLLA: PETALA tria, ovata, obtusiuscula, patentia, margine membranacea.

STAMINA: FILAMENTA sex, brevissima, alba; ANTHÈRE sublineares, flavæ, apice bifidae.

PISTILLUM: GERMIN trigonum; STYLI tres, capillares, reflexi, inter rimas petalorum convenienter exserti; STIGMATA laciniatæ.

PERICARPIUM nullum: Corolla trivalvis, connivens, includens femen; valvulis ovato-acutis, venosis, margine denticulatis, unica granifera, fig. 1. 2. 3.

SEmen unicum, triquetrum, fuscum.

ROOT perennial, running deeply and straightly into the earth, tapering, the thickness of the middle finger, on the outside of a dirty brown colour, internally yellowish, in the young ones simple, in the old ones divided into many branches.

STALK three feet high, upright, branched down to the bottom, round, smooth, upwards slightly rough, grooved, solid and jointed, joints covered with obsolete, withered stipulae.

LEAVES next the root of an heart shaped oval form, standing on footstalks, bluntnish, veiny underneath, the middle generally very red, those on the stalk pointed and somewhat waved.

LEAF-STALKS round underneath, above plano-concave.

FLOWER-BRANCHES, proceeding from the alæ of the leaves, nearly upright, and furnished with but few leaves.

CALYX: a PERIANTHUM of three leaves, which are of a shape betwixt lanceolate and linear, hollow, membranous at the edges, and shorter than the corolla.

COROLLA: three oval PETALS, bluntnish, spreading, membranous at the edges.

STAMINA: six Filaments, very short and white; ANTHÈRE somewhat linear, yellow and forked at top.

PISTILLUM: GERMIN three cornered, STYLES three very fine, turning back, and projecting from betwixt the closed petals.

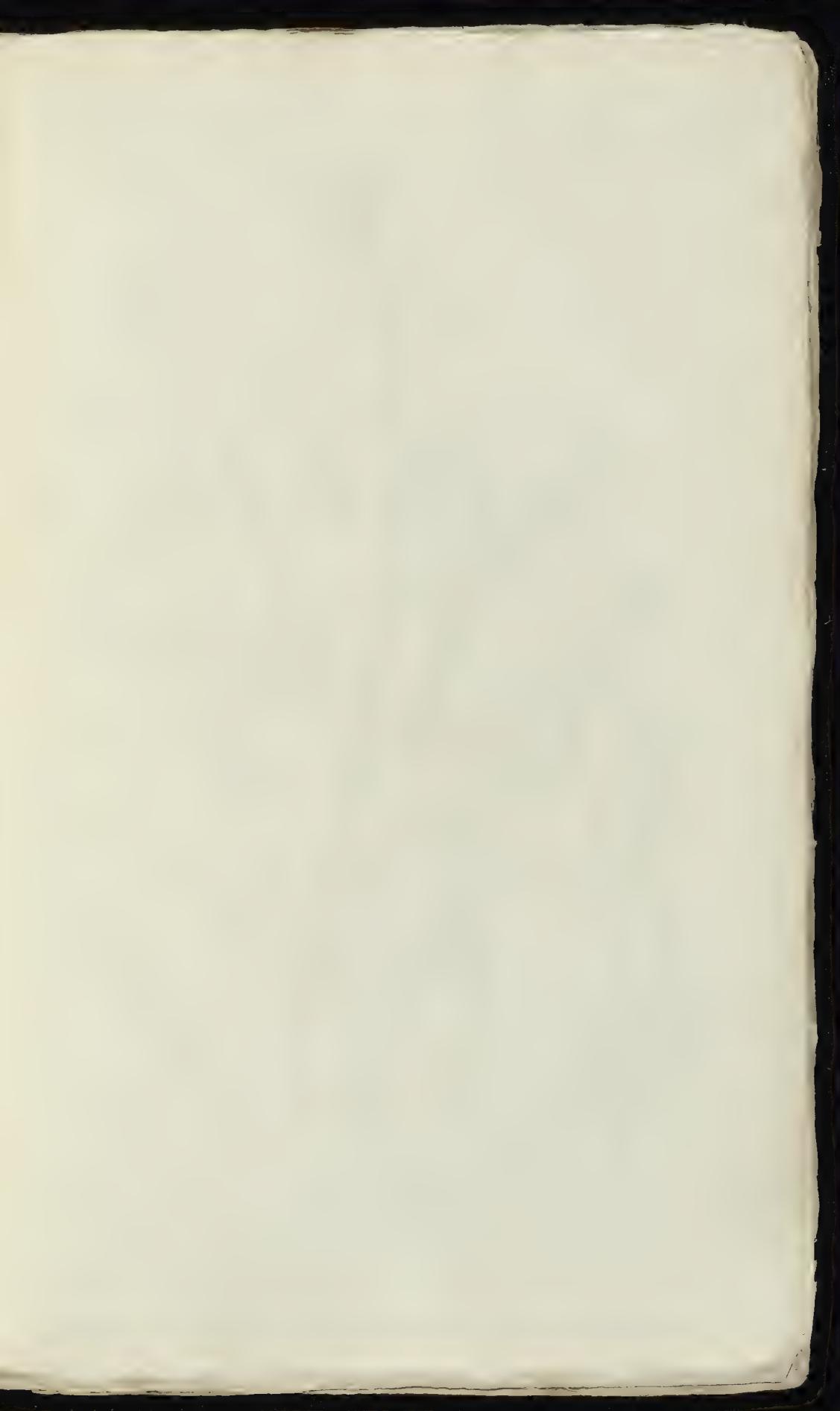
SEED-VESSEL none: the Corolla, which is composed of three valves, closes and contains the seed; the valves are oval, pointed, and veiny, toothed on the edge, one of them bearing a granule. fig. 1. 2. 3.

SEED single, three cornered and brown. fig. 4.

OF all our English Docks, this perhaps may be said to be the most common, and considered as a weed the most pernicious, being the largest and most spreading, except the Water Dock, and refused by cattle in general; hence the Husbandman who wishes to see his grounds neat and clean has a rooted enmity to it, and for its destruction an instrument, called a Docking Iron, has been invented by some one more ingenious than the rest, which is frequently made use of; the purpose of this instrument is to draw the plant up by the root, from whence it is frequently made use of; while any part of the root remained, it would grow again; but this idea, that if it was cut down ever so close, while any part of the root remained, it would grow again, has perhaps been too hastily assumed; frequent mowing might certainly destroy it, and frequent spudding it is presumed would have the same effect, but unless it be done carefully, and at stated periods, little good is to be expected.

In all sorts of cultivated ground, in Farm Yards, Courts, by the sides of Ditches, and elsewhere, we find this species most abundantly, it flowers at the latter end of June, and ripens its seed in July and August.

Our present plant is subject to as little variety as any of the Docks, its broad bottom leaves readily distinguish it, and these, though they may differ somewhat in size according as the foil is more or less luxuriant, vary but little in their shape, in general the younger the plant the more obtuse are its radical leaves.





Rumex maritimus

RUMEX MARITIMUS. SMALL WATER DOCK.

RUMEX Lin. Gen. Pl. HEXANDRIA TRIGYNIA.

Cal. 3. phyllus. Petala 3. conniventia. Sem. 1. triquetrum.

Raii Syn. Gen. 5. HERBÆ FLORE IMPERFECTO SEU STAMINEO VEL APETALO POTIUS.

RUMEX maritimus floribus hermaphroditis: valvulis dentatis graniferis, foliis linearibus. Lin. Syb. T. 2. p. 235. Sp. Pl. 478. Fl. Suecic. n. 313.

LAPATHUM petiolis latefascientibus, foliis longe lanceolatis, floribus verticillatis verrucosis. Haller L. p. 1590.

LAPATHUM aquaticum, angustissime acuminato folio. Bocc. mus. 2. p. 142. t. 115.

LAPATHUM aureum glomerulis densis. Pet. Herb. T. 2. fig. 8.

ANTHOXANTHON. J. B. II 988. angustifolium polyspermion. Merritt p. n.

LAPATHUM aureum Pet. herb. 1. 2. f. 7. longo angustofole, Anthoxantho plurimo accedens, verticillis rarioibus caulem cingentibus, femine majori. Raii Syn. p. 142. Golden Dock. Hudson. Fl. Engl. ed. 2. p. 155. Lighfoot Fl. Scot. p. 118.

RADIX perennis, fusiformis, foris ex rubro fusca, in-
tus ruberrima, sapore adstringente, et ingratu-

ROOT perennial and tapering, externally of a reddish brown, internally of a bright red colour, its taste astringent and unpalatable.

STALK from two to three feet high, branched, of a reddish colour, grooved, and slightly rough.

LEAVES next the root standing on long footfalls, oblong and lanceolate, a little narrowed at the base, of a bluish green colour, flattish, but slightly waved and notched on the edge, the top leaves of a shape betwixt linear and lanceolate, having on the upper side scarce any appearance of veins, and usually bent upwards.

FLOWERS mostly of a yellowish colour, placed around the stalk in numerous thick whorls.

CALYX: a PERIATHIUM of three leaves, which are lanceolate, upright, hollow, and bent a little inwards.

COROLLA: three PETALS; oval and pointed, of a green colour, the edge near the bottom furnished with two or three fine, long teeth, the valves when full grown producing grains which are oblong, tumid and rather large. fig. 1. 2.

STAMINA: six Filaments very fine and very short; ANTHÈRE oblong, upright, double and yellow.

PISTILLUM: GERMEN three corner'd; STYLRS three, very slender, projecting from betwixt the junctures of the closed petals, STIGMATA jagged.

SEED-VESSEL none.

SEED single, three corner'd, shining, contain'd within the closed corolla. fig. 3.

FLORES sèpius flavecentes, circa caulem in densis et numerosis glomerulis verticillatim dispositi.

CALYX: PERIATHIUM tripliyllum, foliis lanceo-

lates, erexit, concavis, paululum incurvis, curvata.

COROLLA: PETALA tria, ovato-lanceolata, viridia, marginè prope basin duobus aut tribus dentibus fetaceis intrincta, granifera, granulati, adulisti super valvulis, oblongis, tumidis, majusculis. fig. 1. 2.

STAMINA: FILAMENTA sex, capillaria, brevissima;

ANTHERÆ oblongæ, erectæ, didymæ, flava,

PISTILLUM: GERMAN trigonum; STYLRS tres, ca-

pillares, inter rimas petalorum conniventium

exserti; STIGMATA lacinianta.

PERICARPIUM nullum.

SEMENT unicum, triquetrum, nitidum, corollâ inclu-

fum. fig. 3.

OF all the different species of Docks which this country produces, this seems to have been the least understood; yet are its characteristic marks not less striking, nor its varieties more remarkable than any of the other species.

That our plant is the *Rumex maritimus* of Linnaeus no one can doubt that reads his description in the *Flora Suecica*; the character of the *radix rubra* so peculiar to it which is given in the *Systema Vegetabilium*, is an additional confirmation of it.

The three species of *Lapathum* viz. n. 4. 5. 10 added to those of RAY by DILLENIUS in the third edition of the Synopsis and mark'd with an asterisk are doubtless to be referred to this plant and considered only as some of its varieties.

The name of *maritimus* seems but ill applied, as it is by no means confined in its growth to the Sea shore, the term *palystris* which Mr. HUDSON has given to a species which I profess myself totally ignorant of would perhaps be more suitable for it.

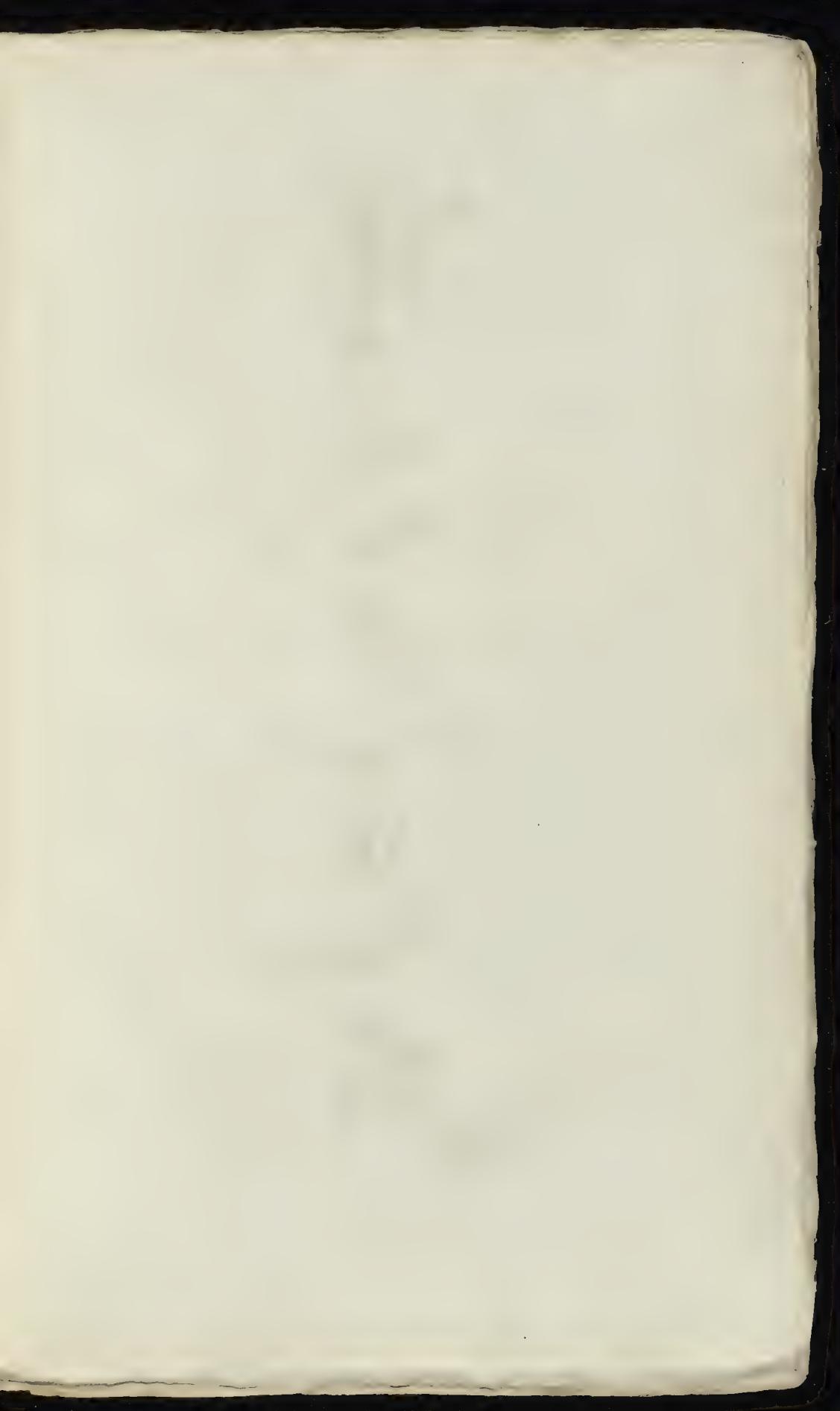
The plant here figured grows in the greatest plenty in the neighbourhood of my Garden St. Georges Fields, so that I have had frequent opportunities of observing it in all its states, its most striking character when in flower or seed is the number and narrowness of the leaves on its branches; when view'd more closely, we are struck with the number and length of the teeth on the edges of the seed valves, which valves are frequently though not always of a yellowish colour and furnished with remarkably large and long grains, if any doubt remains respecting the species, the root on being cut across exhibits a beautifull red colour equal to any carmine, and which is a character that I have hitherto always found to be constant to this species.

The natural situation of the *Rumex maritimus* is a moist one; thus we find it on the edges of wet ditches, and rivulets, tho' not unfrequently in pastures or drier ground, on the former particularly if the situation be sheltered and the soil luxuriant it will grow to the height of three or four feet, having radical leaves a foot long and three inches broad which when young assume a somewhat glaucous appearance, in the latter it seldom grows more than a foot high and then its radical leaves are about six inches long and one inch or somewhat more broad, (outlines of both these leaves are represented on the plate) but in neither of these situations does it lose its character above specified.

It is not only in the neighbourhood of St. Georges Fields that I have noticed this species but in similar situations in many places around London, and I doubt not but it is a very common plant in many parts of England.

It flowers in July, August and September; I remember once to have seen the leaves having red veins like those of the *Rumex sanguineus*.

It is one of those Docks which are the least noxious to the Farmer; the roots I have been informed are frequently dug up and sold for those of the sharp pointed Dock.





Epilobium montanum.

EPILOBIUM MONTANUM. WOOD WILLOW-HERB.

EPILOBIUM *Linnæi*: *Gen. Pl. Octandria Monogynia*

Calyx quadrifidus. Petala quatuor. Calyx oblonga, infera. Semina papposa.

Raii Synop. Gen. 22. HERBÆ VASCULITERÆ FLORE TETRAPETALO ANOMALÆ.

EPILOBIUM foliis oppositis, ovatis, dentatis, *Linnæi Syst. Vegetab. p. 296. Fl. Suecic. n. 329.*

EPILOBIUM foliis ovato-lanceolatis, glabris, dentatis, *Haller Hist. n. 996.*

CHAMAENERION montanum *Scopoli Fl. Carn. p. 270.*

LYSIMACHIA filiformis glabra major, *Baubin p. 245.*

LYSIMACHIA filiformis major *Parkinson. 548.*

LYSIMACHIA campestris. *Gerard emac. 478. Raii Hist. p. 861.* The greater smooth-leaved coddled Willow-herb or loose strife. *Syn.*

Hudson. Fl. Angl. ed. 2. p. 4.

Lightfoot Fl. Scot. p. 198.

RADIX perennis, sublignosa, fibrosa, gemmulis ruberrimis superne instructa.

CAULIS pedalis ad tripedalem, erectus, rubicundus, teres, subpubescens, superne ramosus, fævo vero simplex.

RAMI oppositi.

FOLIA opposita, pedicellis brevissimis basi connatis intidentia, ovata acuta, argute dentata, súperne glabra, inferne pallidiora, venosa, hirsutula, imis fævo ruberrimis.

CALYX: PERIANTHIUM superum, tetraphyllum, foliolis lanceolatis, nervo medio conspicuo, *fig. 1.*

COROLLA: PETALA quatuor, orbiculata, profunde emarginata, pallide purpurea, calyx longiora, patentia. *fig. 2.*

STAMINA: FILAMENTA octo, subulata, alba, quorum quatuor alterna breviora, ANTHEÆ flavecentes. *fig. 3.*

PISTILLUM: GERMINUS tetragonum, inferum, prælongum, sulcatum; STYLUS albus, longitudine filamentum, apice paululum incrassatus; STIGMA quadrifidum, album, lacinii patens, non vero revolutis. *fig. 4. 5.*

SEMINA minima, papposa. *fig. 6.*

ROOT perennial, somewhat woody and fibrous, on its upper part furnished with little buds of a bright red colour.

STALKS from one to three feet high, upright, of a red colour, round, scarce perceptibly downy, branched above, but often single.

BRANCHES opposite.

LEAVES opposite, fitting on very short footstalks, whole bases unite, ovate and pointed, sharply toothed on the edges, on the upper side smooth, on the under side of a paler colour, veiny and very slightly hairy, the bottom ones often of a bright red colour.

CALYX: a PERIANTHIUM placed above the germen, composed of four narrow pointed leaves, in which the midrib is conspicuous. *fig. 1.*

COROLLA four PETALS inversely heart-shaped, deeply notched, of a pale purple colour, longer than the calyx and spreading. *fig. 2.*

STAMINA eight FILAMENTS, tapering, of a white colour, four of which are alternately shorter; ANTHEÆ yellowish. *fig. 3.*

PISTILLUM: GERMINUS four cornered, placed beneath the calyx, very long and grooved; STYLUS white, the length of the stamens, thickened a little at top; STIGMA divided into four segments, white, the segments spreading but not rolled back. *fig. 4. 5.*

SEEDS very small and downy. *fig. 6.*

MOST of the Willow-herbs that we have already figured, have grown in wet situations, this rather delights in Woods, Hedge-rows, Thady Lanes, and Hedges, sometimes it is also found on Walls in Courts and Areas; it flowers from June to August.

We sometimes find it having three or four leaves at each joint, a variety to which most of this family is subject.

SEDUM TELEPHIUM ORPINE.

SEDUM Lin. Gen. Pl. DECANDRIA PENTAGYNYA.

Cal. 5-fidus. Cor. 5-petala. Squamæ nectariferæ 5 ad basin germinis.
Caps. 5.

Raii Syn. Gen. 17. HERBÆ MULTISILIQUÆ SEU CORNICULATEÆ.

SEDUM foliis planiusculis ferratis, corymbo foliō caule erecto. Lin. Syst. Vegetab. p. 358. Sp. Pl. 616. Fl. Suecic. n. 400.

SEDUM androgynum foliis confertis, ferratis, floribus dense umbellatis. Haller. Hj. 954.

SEDUM Telephium. Scopoli Fl. Carniol. p. 323.

TELEPHIUM vulgare. Bauhin. Pin. 287.

ANACAMPSEROS, vulgo Faba craſſa. J. B. III. 681.

TELEPHIUM seu craſſula major vulgaris. Park. 726.

CRASSULA seu Faba inversa Ger. 416. Raii Syn. p. 269. Orpine or Live long.

Hudson. Fl. Angl. ed. 2. p. 195.

RADIX perennis, tuberosa.

CAULES plurimi simul evançuntur, pedales, bipedales, et ultra, erexit, simplices, teretes, solidi, rubicundi, et ſape rubro punctati.

FOLIA ſpatula, conferta, eredit, ſerrula, ovata, dentata, idque varie, glabra, carnoia, glauca.

FLORES in ſummis caulinis et ramulis (in quos ſummi caules diuiduntur) in umbellas denfas digeſti, saturate purpurei, nobifcum rariflamine albi.

CALYX: PERIANTHUM minimum, carnofum, quinquefidum, lacinias acutis. fig. 1.

COROLLA: PETALA quinque, lanceolata, acuminata, plana, ſuperne purpurea, fubtus albentia. fig. 2.

STAMINA: FILAMENTA decem, subulata, longitudine corollæ, ANTHÈRE subrotunda, purpureoflaventes. fig. 3.

PISTILLUM: GERMINA quinque, oblonga, definfintia in filios tenuiores, coloratos; STIGMATA minima. fig. 4.

PERICARPIUM: CAPSULÆ quinque, acuminate, erectæ. fig. 5.

SEMINA plurima, minima.

ROOT perennial and tuberous.

STALKS many, growing up together, from one to two feet high, and upwards, upright, unbranched, round, solid, reddish, and often dotted with red.

LEAVES placed on the stalks so as nearly to cover it, in no regular order, upright, ſerrile, ovate, indented and that variouly, smooth, fleshy, and of a blueish green colour.

FLOWERS placed on the tops of the stalks and branches (into which the tops of the stalks divide) in close umbells, of a deep purple colour, very rarely white with us.

CALYX: a PERIANTHUM, very minute, and fleshy, the segments pointed. fig. 1.

COROLLA: five lanceolate petals, running out to a long point, flat, purple above, and whitish underneath. fig. 2.

STAMINA: ten FILAMENTA tapering, the length of the corolla; ANTHÈRE roundish, and ſome-what purple. fig. 3.

PISTILLUM: five GERMINA, of an oblong shape, terminating in five, slender, coloured styles; STIGMATA, very minute. fig. 4.

SEED-VESSEL: five, acuminate, upright CAPSULES. fig. 5.

SEEDS numerous and very small

Of our English *Stonecrops*, this is the only one that has flat leaves, and consequently is distinguished with the utmost facility; it partakes however of the fleshy nature of the others.

It is a beautiful plant both in its foliage and flowers, and being easily cultivated, is met with in most gardens, where it will often grow a yard high.

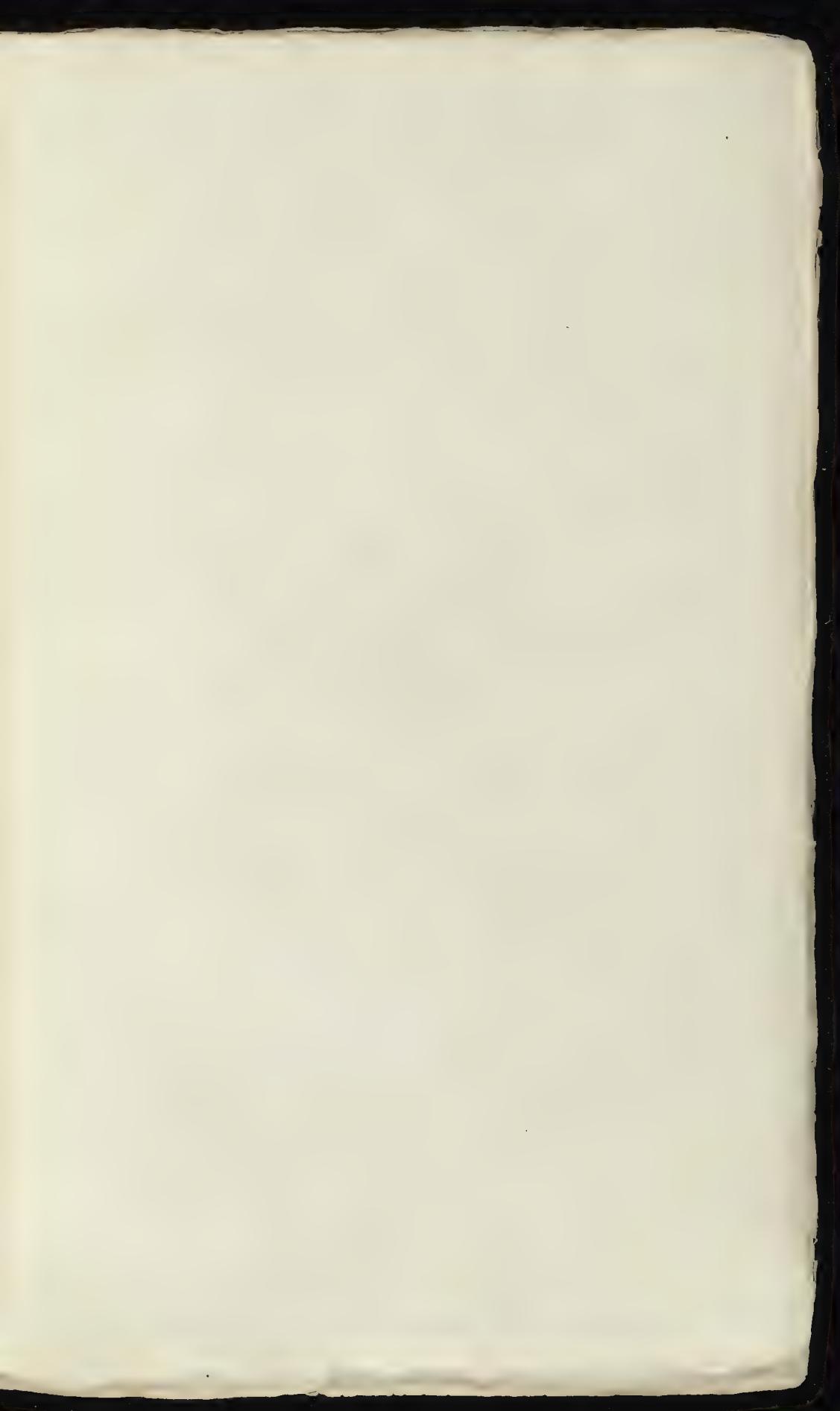
It is said to vary in its leaves and bloſſoms, the former being ſometimes found entire at the edge, and the latter of a white colour.

I have found it wild in many places about London, but moſt plentifully in the vicinity of Charlton and Shooter's Hill; it grows among the herbage on the confines of woods and flowers in July and Auguft.

LINNÆUS informs us that the Caterpillar of the *Phalena alpicola* feeds on its leaves.



Sedum Telephium.





Sedum hispynphyllum

in mons longo

SEDUM DASYPHYLLUM. THICK-LEAVED STONECROP.

SEDUM Linnei, Gen. Pl. DECANDRIA PENTAGYNA.

Cal. 5-fidus. Cor. 5-petala. Squamæ nectariferæ 5 ad basin germinis. Caps. 5.

Raii Syn. Gen. 17. HERBÆ MULTISILIQUÆ SEU CORNICULATEÆ.

SEDUM *dasyphyllum* foliis oppositis ovatis obtusis carnosis, caule infirmo, floribus sparsis. *Linn. Syst. Vegetab.* p. 358. *Spec. Plant.* 618.

SEDUM foliis conicis, obtusis, glaucis, reticulatis; caule infirmo, floribus sparsis. *Haller. Hist.* n. 961.

SEDUM *dasyphyllum*. *Scopoli. Fl. Carn.* n. 555.

SEDUM minus circinato folio. *Baum. Pin.* 283.

SEDUM foliis cordato-ovatis compressis sèpius oppositis, floribus sparsis. *Savv. Monsp.* 8.

SEDUM foliis semiglobosis subovatis sessilibus quadrifariam imbricatis. *Wachend. ultr.* 391.

AIZOON *dasyphyllum*. *Dalech. Hist.* 1133.

Raii Syn. ed. 3. p. 271.

Hudfon. Fl. Angl. 172. ed. 2. p. 197.

PLANTÆ perenniæ.

CAULES plurimi, triunciales et ultra, teretes, debiles, vicosi, simplices, erecti, basi repentes.

FOLIA pro ratione plantæ magna, plerumque opposita, cordato-ovata, adnata, carnosæ, glaucæ, interne planicula, externe convexa, punctata, saepe rubore quasi reticulata, circa medium caulis majora, inferiora interne excavata.

PEDUNCULI ramosi, viscidæ, priusquam flores appearintur nutantes.

FLORES intus albi, externe rubentes.

CALYX: PERIANTHIUM sexpartitum, parvum, lacinias ovatis, carnosis, viscidis, fig. 1, parum acutæ.

COROLLA: PETALA sex, ovato-acuta, plana, patentia, calyx triplo longiora, carinata, fig. 2, magn. nat.

NECTARIA sex, singulum glandula minima flava singulo germinat basin extrorsum posita, fig. 5.

STAMINA: FILAMENTA plerumque duodecim, subulata, longitudine corolla: ANTERÆ primum subrofundæ, rubrae, demum comprefice: POLLEN flavum, fig. 3.

PISTILLUM: GERMINA sex, oblonga, desinentia in STYLOS tenuiores: STIGMATA simplicia, recurvata, fig. 4.

PERICARPIUM: CAPSULE sex, pallide fusce, in trorsum dehiscentes.

SEMINA minima, flavescens.

SUCH persons as are fond of decorating the rock work of their gardens with plants, cannot select one better adapted to the purpose than the present species of Stonecrop. It grows without any trouble, in any aspect, multiplies very much by young shoots, and looks beautiful throughout the year. Indeed it is strange that it has not yet made its way more universally into gardens.

I have frequently noticed it on the walls about town. It grows particularly in great abundance on a wall near Chelsea Hospital, on the left-hand side of the horse-road, on turning the corner out of Paradise-Row; likewise on a wall on the left-hand side of the lane leading from Kensington gravel-pits to Acton; and elsewhere.

Its thick white leaves readily distinguish it from every other species of Stonecrop.

Botanists have differed widely in the descriptions of these, as will appear from a perusal of the Synonyms.

It flowers in June; and has generally one additional part more throughout the whole of the fructification than the *Sedum acre*, and other Stonecrops.

The PLANT is perennial.

STALKS numerous, about three inches high, round, weak, clammy, simple, upright, and creeping at bottom.

LEAVES, in proportion to the plant, large, generally opposite, of an heart-shaped oval figure, growing to the stalk, fleshy, of a bluish green colour, flattish on the inside, and convex on the outside, dotted, frequently veined with red, largest about the middle of the stalk, the lowermost hollow on the inside.

FLOWER-STALKS branched, clammy, before the flowers open hanging down.

FLOWERS white on the inside, externally reddish.

CALYX: a PERIANTHIUM divided into six segments, small, the segments oval, fleshy, and villoid, fig. 1, a little magnified.

COROLLA: six PETALS, oval and pointed, flat, spreading, three times the length of the calyx, midrib projecting, fig. 2, natural size.

NECTARIES six, each a small yellow gland, placed externally at the bottom of each germen, fig. 5.

STAMINA: FILAMENTS most commonly twelve, tapering, the length of the corolla: ANTERÆ, first roundish, and of a red colour, lastly flattened; the POLLEN yellow, fig. 3.

PISTILLUM: six GERMINA, oblong, terminating in slender STYLES: STIGMATA simple, and bending down, fig. 4.

SEED-VESSEL: six CAPSULES of a pale brown colour, opening internally.

SEEDS very minute, and yellowish.





Agrostemma Githago

AGROSTEMA GITHAGO. COCKLE.

AGROSTEMA Lin Gen. Pl. DECANDRIA PENTAGYNYA.

Cal. i-phyllo, coriaceus. *Petalæ* 5 unguiculata: *Limbo* obtuso, indiviso.
Cap. i-locularis.

Raii Syn. Gen. 24 HERBÆ PENTAPETALEÆ VASCULIFERÆ.

AGROSTEMA *Githago* hirsuta, calycibus corollam æquantibus; petalis integris nudis. *Lin. Syb.*
Veg. p. 361. *Sp. Pl.* 624. *Fl. Sucic.* n. 497.

LYCHNIS calycibus longissime caudatis. *Haller. Hist.* 926.

LYCHNIS *Githago*. *Scopoli Fl. Carn.* n. 527.

LYCHNIS segetum major. *Baub.* p. 204.

PSEUDO-MELANTHİUM *Ger-emac.* 1087.

LYCHNOIDES segetum sive Nigellastrum. *Park.* 632. *Raii Syn.* 338. Cockle.

Hudson Fl. Angl. ed. 2. p. 198.

Lightfoot Fl. Scot. p. 238.

Oeder. Fl. Dan. t. 576.

RADIX annua.

CAULIS erectus, bipedalis, teres, fistulosus, hirsutus,
superne ramosus.

FOLIA oblongo-lanceolata, carinata, basi connata, utrin-
que hirsuta, pilis ad basim folii longioribus.

FLORES solitarii, speciosi, purpurei.

CALYX: PERIANTHİUM monophyllum, quinquefi-
dum, profunde sulcatum, angulofum, pilo-
sum, lacinia lanceolatis, subnudis, carinatis,
corolla longioribus.

COROLLA: PETALA quinque, magna, speciosa,
purpurea, obcordata, basi albida, venis paucis
faturate viridibus interrupte notatis; *Unguis*
sublinearis, longitudine fere limbi. fig. 1.

STAMINA: FILAMENTA decem, subulata, quinque
ad, basim petalarum inserta, quinque superiora in-
tra petala locata: ANTHÈRE pallide purpurea,
subfligittata. fig. 2. 3.

PISTILLUM: GERMIN subrotundo-conicum, viride,
glabrum: STYLI quinque, filiformes, albidæ,
pilosæ, erectæ, apicibus paululum reflexis; STIG-
MATA simplicia. fig. 4. 5.

PERICARPIUM: CAPSULA magnitudine fere glandis,
calyce exsiccatæ tectum, ore quinquedentato,
lineis decem elevatis notatum. fig. 6.

SEMINA plurima, majuscula, angulata, eleganter
exasperata. fig. 7.

ROOT annual.

STALK upright, about two feet high, round, hollow,
hirsute, branched at top.

LEAVES of an oblong lanceolate shape, keel'd, uni-
ting at the base, hairy on both sides, the hairs
at the base of the leaves longest.

FLOWERS standing singly on the tops of the stalks,
showy and purple.

CALYX: a PERIANTHİUM of one leaf, divided into
five segments, of a hard substance, deeply
grooved, angular and hairy; the segments
lanceolate, slightly hairy, with a prominent
midrib, and longer than the corolla.

COROLLA: five PETALS, large, showy, of a purple
colour, and inversely heart-shaped, the base
whitish, marked with a few interrupted
veins of a deep green colour; Claw somewhat
linear, almost the length of the limb. fig.
1.

STAMINA: ten FILAMENTS, tapering, five inserted
into the base of the petals, and five later ones
placed betwixt the petals; ANTHÈRE of a
pale purple colour, and somewhat arrow-
shaped. fig. 2. 3.

PISTILLUM: GERMIN of a roundish conical shape,
smooth, and of a green colour; STYLES five,
thread-shaped, whitish, hairy, upright, the
tips bending a little back; STIGMATA simple.
fig. 4. 5.

SEED-VESSEL: a CAPSULE almost the size of an
acorn, covered with its dried calyx, having
ten ribs, the mouth splitting into five teeth.
fig. 6.

SEEDS numerous, largish, angular, with a surface
like shagreen. fig. 7.

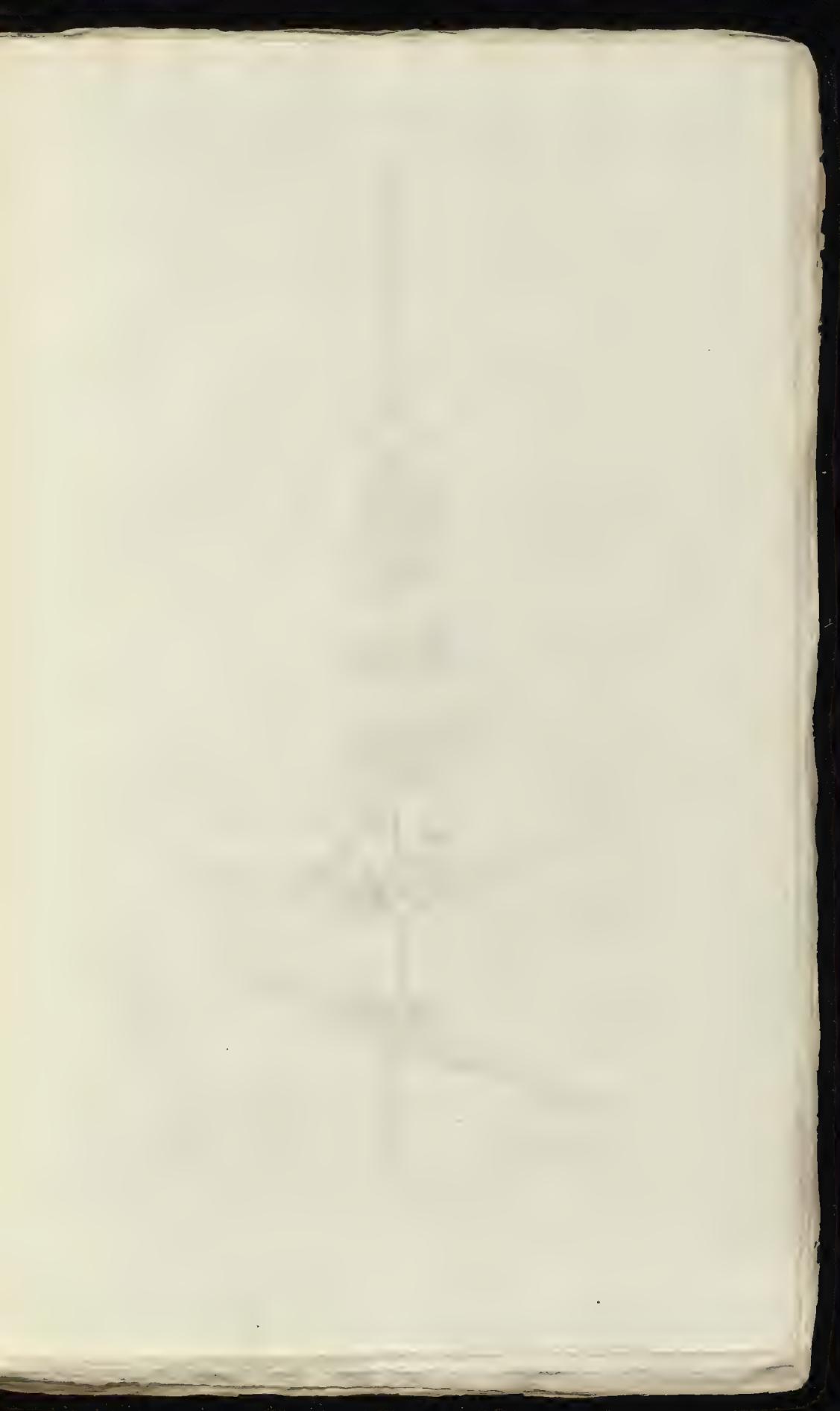
The Cockle is a very common plant in most Corn-fields about London and elsewhere; it flowers in June and July.

Like the red Poppy it contributes to ornament our fields, but is rarely found in gardens.

A miller informed me he never wished to see any of it among the corn he ground, as it had a very great ten-
dency to clog his mill-stones.

The seeds being large and mealy, probably afford food to several sorts of birds.

Its medical virtues, highly extolled by former writers, are disregarded in the present practice.





Sythrum italicum

LYTHRUM SALICARIA. PURPLE-SPIKED LOOSE-STRIFE.

LYTHRUM Lin. Gen. Pl. DODECANDRIA MONOGYNIA.
Cal. 12 fidus. Petala 6. calyci inferta. Caps. 2. locularis, polysperma.

Raii Syn. Gen. 25. HERBÆ HEXAPETALÆ ET POLYPETALÆ VASCULIFERÆ.

LYTHRUM *Salicaria* foliis oppositis cordato lanceolatis floribus spicatis dodecandris. Lin. Syst. Vegetab. p. 371. Spec. plant. 640. Fl. Suec. n. 422.

SALICARIA foliis lanceolatis, subhirsutis, floribus spicatis. Haller. hif. 854.

LYTHRUM *Salicaria*. Scopoli Fl. Carn. n. 565. *Lysimachia* spicata purpurea. Baub. pin. 246.

SALICARIA vulgaris purpurea foliis oblongis. Tourn. Inst. Raii Syn. p. 367. Purple spiky Willow-herb, or Loose-strife.

LYSIMACHIA purpurea Ger. emat. 476. Parkinson. 546. Hudson. Fl. Angl. ed. 2. p. 206. Lightfoot, Fl. Scot, p. 206.

RADIX perennis, crassa, ramosa, sublignosa, in latum extensia.

CAULIS bipedalis ad tripedalem, erectus, inferne glaber, tetragonus, superne pubescens, pentagonalis: angulis acutis, membranaceis, scabris, ramosis.

RAMI superiores sparsi; inferiores oppositi, tetragoni, scabri, minutum pubescentes, erecti, breviusculi, frequentes.

FOLIA sessilia, amplexicaulia, lanceolata, acuta, triplicaria, supra glabra, subtus minutum pubescentia, scabriula, venosa, margine scabria, patentia; inferiora opposita, superiora opposita, rama opposita.

SPICÆ terminales, cylindricæ, e glomeribus florum composite, conglomeribus remotiusculis, circiter octofloris, bracteâ fulcitis.

BRACTÆ glomerum solitariae, ovatae, longius acutæ, subtus villosæ, calycibus longioribus, subpurpleæ; florum linearis-subulatae, parviusculæ.

CALYX: PERIANTHIUM tubulatum, turbinato-cylindricum, striatum, hirtulum; ore truncato, 12 fido; lacinia purpurascens; quarum sex alternae subulatae, hirsute, erectæ; sex aliae alternae parvae, ovato-acutiusculæ, inflexæ, concavæ, apice minutum barbatæ. fig. 1.

COROLLA purpurea: PETALA 6, cuneiformi-oblonga, obtuso rotundata, erecta, calyce longiora, margine calycis intra lacinias calycis longiores inferta, patentia. Petala ante erupcionem calycis tubo intrusa sunt et recondita; hinc postmodum erumpunt et quasi e calyce extra-huntur. fig. 2.

STAMINA: Filamenta 12, subulata, albida, calycis parieti intra tubum inferta, quorum sex longiora tubo calycis paulo longiora; 6 breviora intra tubum recondita; ANTHÈRE inferiores ovatae, lateæ, incumbentes, superiores purpureæ. fig. 3.

PISTILLUM: GERMIN superum, ovatum, acutum, utrinque fulcatum, glabrum, viridescens; STYLUS cylindricus, albus, corollæ vix longior; STIGMA capitatum. fig. 4.

PERICARPIUM: CAPSULA oblonga, testa, bilocularis. fig. 5. 6.

SEMINA plurima, minima. fig. 7.

ROOT perennial, thick, branched, somewhat woody, widely extended.

STALK from two to three feet high, upright, below smooth, four-cornered; angles sharp, membranous and rough; branched.

BRANCHES: the upper ones placed without any order; the lower ones opposite, four-cornered, rough, and slightly downy, upright, shortish, and numerous.

LEAVES sessile, embracing the stalk, lanceolate, pointed; about three inches long, above smooth, underneath slightly downy, roughish, and veiny, spreading; the lower ones opposite, the upper ones placed without any regular order, those of the branches opposite.

SPIKES terminal, cylindrical, composed of clusters of flowers, which are placed at a little distance from each other, and consist of about eight flowers supported by a floral leaf.

FLORAL-LEAVES of the clusters solitary, oval with a long point, underneath villous, longer than the flower-cups, and purplish, those of the flowers small, nearly linear, and running out to a point.

CALYX: A PERIANTHIUM tubular, cylindrical but widest at top, striated, hirsute, the mouth as if cut off, divided into twelve purplish segments, six of which run out to a long point, are hirsute and upright, the other six which are alternate with the preceding six are small, ovate, pointed, bend inward over the stump, are hollow and minutely bearded at top. fig. 1.

COROLLA purple. PETALS 6, of an oblong wedge shape, blunt at the extremity, upright and longer than the calyx, inserted into the edge of the calyx between its longest segments, and spreading. The Petals, before they break out, are as it were thrust into and hid in the tube of the calyx, from whence they afterwards burst forth, and are as it were drawn out of the calyx. fig. 2.

STAMINA: 12 Filaments, tapering and whitish, inserted into the insides of the calyx, of which the six longest are somewhat longer than the tube of the calyx, and the six shortest hid within the tube; ANTHÈRE ovate and incumbent, the lowermost yellow, the uppermost purple. fig. 3.

PISTILLUM: GERMIN above the calyx, ovate, pointed, with a groove on each side, smooth, greenish; STYLE cylindrical, white, scarce longer than the Corolla; STIGMA forming a little head.

SEED-VESSEL: an oblong Capsule, covered by the calyx, of two cavities. fig. 5. 6.

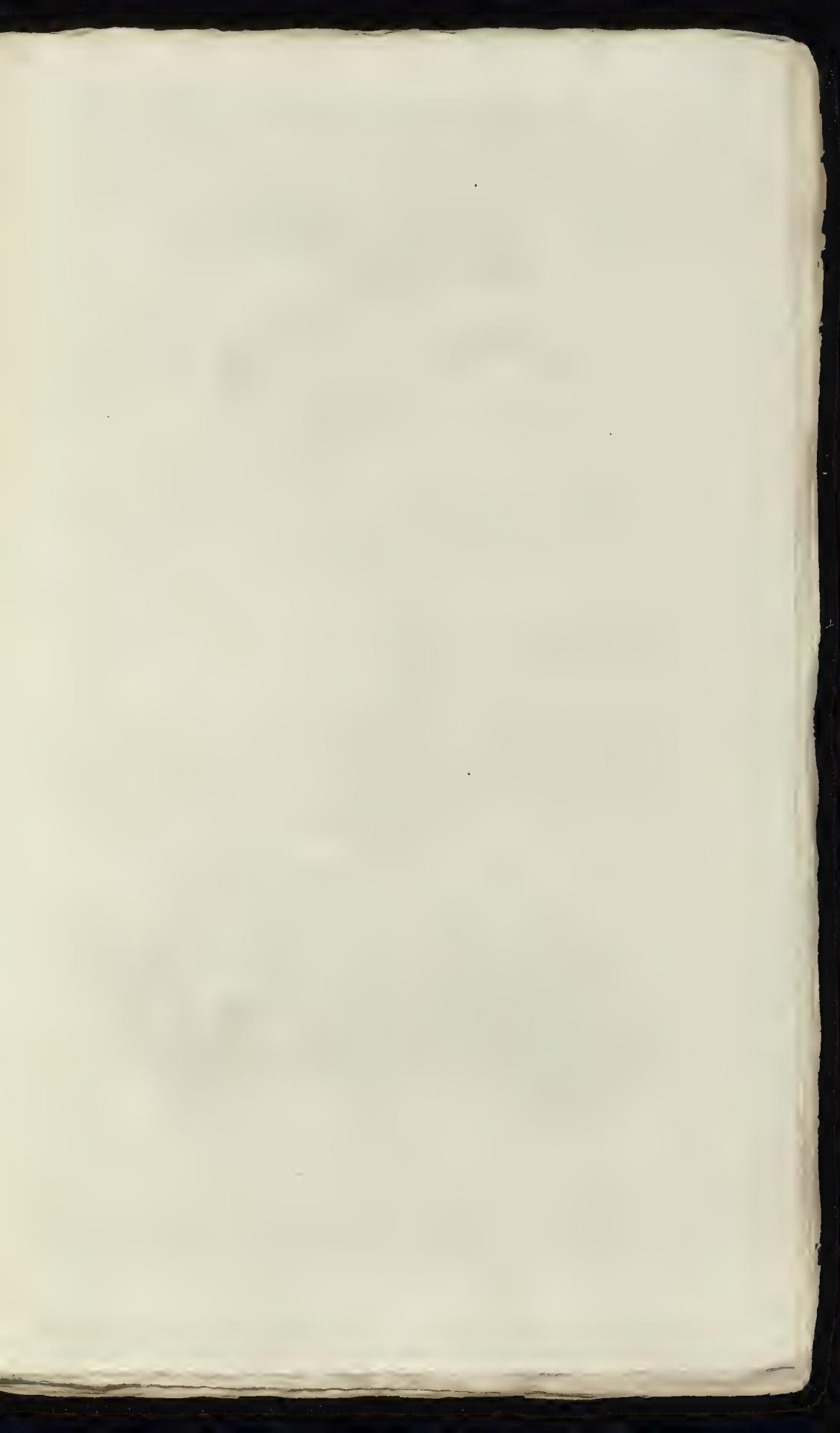
SEEDS numerous and very small. fig. 7.

The beautiful long spikes of purple flowers which this plant plentifully produces during the latter part of the Summer, render it a conspicuous ornament on the banks of rivers, ponds, ditches, &c. where it grows almost universally in this country; brought into the garden it flourishes without any trouble, and is a very proper plant to grace the shrubby.

Its qualities appear to be of the astringent kind, hence it has been recommended by DE HAEN in long protracted Diarrhaea and Dysenteries. Vid. rat. med. part. 4. p. 195.

It generally remains untouched by cattle, I have this year observed its leaves very much eaten by the Caterpillar of a *Tremblette*.

The structure of the blossom is singularly curious, and will amply repay the botanist the trouble of dissecting it. I have noticed a variety with three leaves at a joint, in which the stalk was hexagonal.





Sempervivum tectorum

SEMPERVIVUM TECTORUM. HOUSELEEK.

SEMPERVIVUM Lin. Gen. Pl. DODECANDRIA DODECAGYNIA. Cal. 12. partitus Petala 12. Capsule 12. polyppermæ.

Raii Syn. Gen. 17. HERBÆ MULTISILIQUÆ SEU CORNICULATEÆ.

SEMPERVIVUM tectorum foliis ciliatis propaginibus patentibus. Linn. Syst. Vegetab. p. 178. Sp. Pl. 664. Fl. Suec. n. 428.

SEMPERVIVUM rosulis glabris ciliatis, petalis conglutinatis, lanceolatis, hirsutis, quatuordenis. Haller. Hist. n. 949.

SEDUM tectorum. Scopoli Fl. Carn. n. 529.

SEDUM majus vulgare. Baubin. pin. 283. Parkinson. 730.

SEMPERVIVUM majus. Ger. emac. 510. Raii Syn. p. 269. Houseleek.

Hudson. Flor. Engl. ed. 2. Lightfoot. Fl. Scot. p. 251.

RADIX biennis, ramosa, plurimis fibrillis instructa.

FOLIA radicalia in formam Rosæ plene disposita, fœtilla, cuneiformia, plurimum pollicaria, carnosæ, crassæ, supra plana, subitus convexiuncula, utrinque glabra, inferne albida, marginæ ciliata, et fæpius rubore tincta, acuminata, eræta, exteriora majora, interiora feni-
fim minora.

PROPAGINES longius petiolatæ, globosæ, magnitudine ovi columbini vel ultra, strobiliformes, imbricatae foliis erætis.

PETIOLI propaginum cylindrici, teretes, ferrugines, lanuginosæ, longius exprocrecti, nudi, e basi radicis prope folia, exentes.

SCAPUS dodrantalis aut pedalis, erætus, teres, lanuginosæ, rubicundus, foliosus, apice ramosus, ramis floriferis patentibus, recurvis.

FLORES plurimi, conferti, eræti, secundi, carnei.

CALYX: PERANTHIIUM plerumque duodecimfidum, lacinii lanceolatis, hirsutis, ciliatis, viscosi, apice purpureis.

COROLLÆ: PETALA duodecim et ultra, calyce du-
plo longiora, lanceolata, carneæ.

STAMINA: FILAMENTA numero et figura maxime variantia, plerumque duodecim, subulato-te-
nuia; ANTHÆTÆ subrotunda, purpureæ.

PISTILLUM: GERMINA duodecim in orbem posita,
eræta, deflexa in STYLOS totidem patentes;
STIGMATA acuta.

PERICARPIUM: CAPSULÆ oblongæ, compresæ, extrofsum acuminatæ, introrūm dehiscentes.

SEMINA plurima, subrotunda, parva.

ROOT biennial, branched, and furnished with numerous fibres.

LEAVES next the root disposed in the form of a full blown double rose, sessile, wedge-shaped, somewhat more than an inch long, fleshy, thick, above flat, on the under side a little convex, smooth on both sides, beneath whitish, the edges fringed with hairs, and generally tinged of a reddish colour, pointed, upright, the outer ones largest, the inner ones gradually smaller.

OFFSETTS standing on long footstalks, globular, the size of a pigeon's egg or larger, formed somewhat like the cone of a pine, the leaves laying one over another and upright.

FOOTSTALKS of the offsets cylindrical, round, iron-colour'd, slightly woolly, stretching out to a considerable length, naked, springing from the base of the root near the leaves.

FLOWERING-STEM from nine inches to a foot in height, upright, round, woolly, of a reddish colour, leafy, at top branched, the branches sustaining the flowers, spreading, and bending back.

FLOWERS numerous, crowded, upright, growing all one way, of a flesh colour.

CALYX: a PERIANTHIUM divided usually into twelve segments, which are lanceolate, hirsute, edged with hairs, clammy, and purplish at top.

COROLLÆ: twelve or more PETALS twice the length of the calyx, lanceolate and flesh coloured.

STAMINA: FILAMENTA varying very much both in shape and number, generally fourteen, slender and tapering; ANTHÆTÆ roundish and purple.

PISTILLUM: twelve GERMINA placed in a circle, upright, terminating in the same number of spreading STYLES; STIGMATA pointed.

SEED-VESSEL: numerous oblong CAPSULES, flattened, outwardly terminating in a point, and opening inwardly.

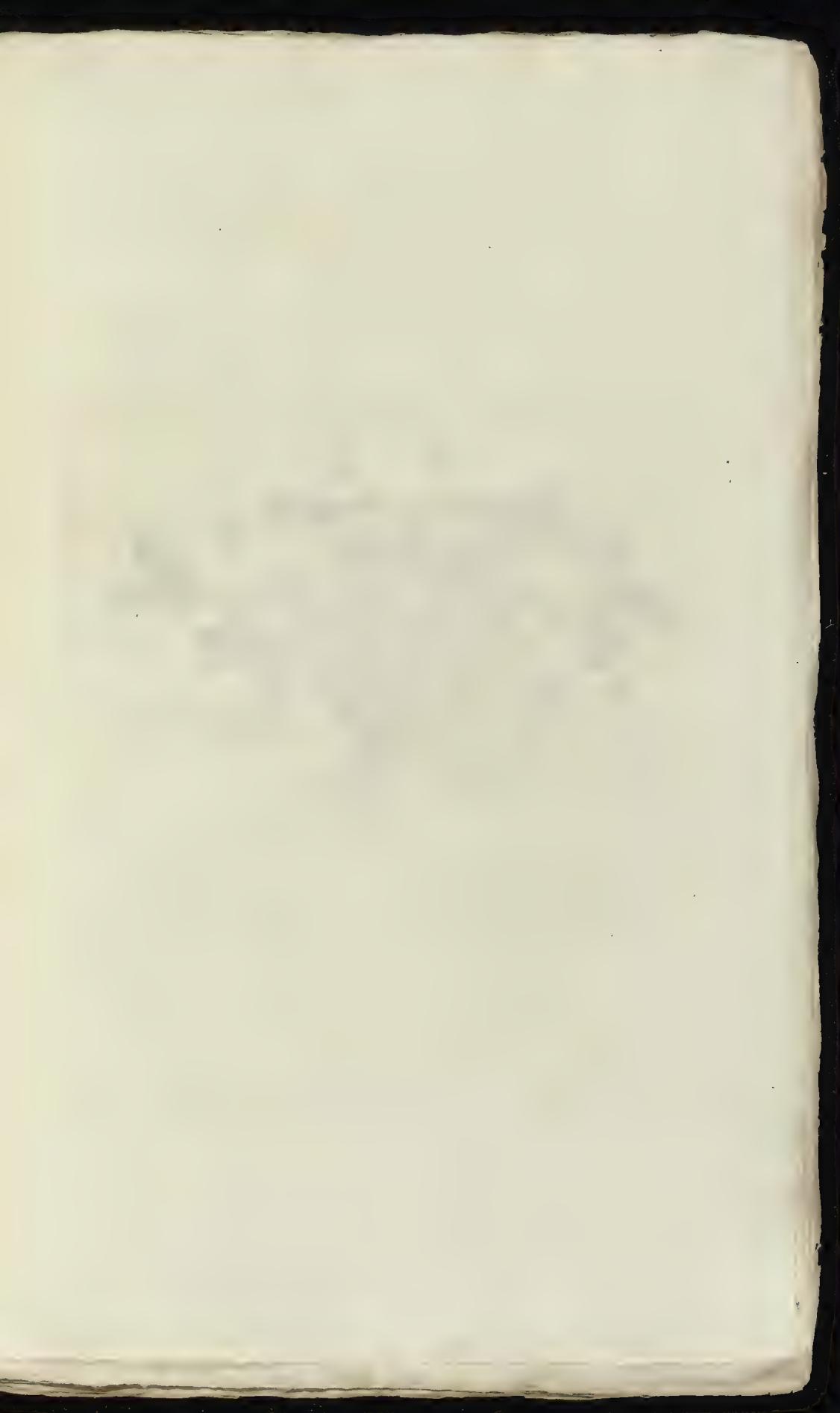
SEEDS numerous, roundish and small.

Mr. RAY, in his *Synopsis*, and Mr. LIGHTFOOT, in his *Flora Scotica* doubt whether the Houseleek be originally a native of this country, however that be, it is now so common a plant on the house, or wall of every one that is in the least fond of plants, that we shall not apologize for introducing it among our London plants.

HALLER describes it among his *Switzerland* plants, and having gathered it on the Alps in its truly wild state, he enters very minutely into its description, and among other peculiarities he takes notice of the uncommon appearance which the Filaments often assume, and which is indeed such an appearance as would much puzzle an inexperienced Botanist, the Filaments as he truly observes are of two kinds, the one perfect and similar to the generality of Filaments, the other even when young are evidently enlarged towards the end, and throw out from their substance little oblong white corpuscles like the eggs of some insect, which indeed I first took them to be, not having then looked into Haller, but on examining a great number of flowers at different stages of their growth I found they were common to many filaments, and that those filaments which were thus enlarged were also more glutinous than the others, the Antheræ on their extremities were somewhat imperfect, as the fructification proceeded towards maturity, the filaments continued to enlarge about the middle, while the top was drawn out to a kind of beak, indeed in this state they seem to partake more of the nature of the Piftillum than of the Filaments, and for such would be liable to be taken, on cutting them through they appeared hollow and contained some of the same corpuscles which were observable on the outides of many of them, so that from their present appearance it was impossible to know that they were originally filaments, which may serve as a caution to students that in examining of flowers they should always begin with such as are not expanded. Vid. 1. 2. 3. 4. 5. 6. 7. 8.

Houseleek has been universally considered as a cooler, the leaves bruised, or its juice have been applied to burns, spreading ulcerations, fissures of the tongue, the piles, inflammations of the eye, &c. the juice mixt with a little alum and honey is recommended for the thrush in children, and the leaves themselves are frequently applied to canks.

LINNÆUS informs us that this plant is a preservative to the coverings of the houses in Smoland, it certainly may with the least possible trouble be made quickly to cover the whole roof of a house, whether that roof consists of tiles, thatch, or wood, by sticking the offsets on with a little earth or Cow Dung; and if it should not be found to have the good effect here spoken of, which I am by no means inclined to doubt, it forms at least a very pretty ornament on Barns, Stables, Out houses and Walls, particularly in the month of July when it flowers.





Fragaria ananassa

FRAGARIA STERILIS. BARREN STRAWBERRY.

FRAGARIA Lin. Gen. Pl. ICOSANDRIA POLYGYNIA.

Cal. 10. fidus. Petala 5. Receptaculum feminum ovatum, baccatum, deciduum.

Raii Syn. Gen. 25. HERBÆ SEMINE NUDO POLYSPERME.

FRAGARIA sterilis caule decumbente, ramis floriferis laxis. Lin. Syl. vegetab. p. 396. Sp. Pl. 709.

FRAGARIA caule prostrato, foliis ternatis retusis sericeis. Haller. Hist. herb. 1113.

FRAGARIA sterilis. Bauh. pin. 327.

FRAGARIA minime vesca. Park. 758.

FRAGARIA minime vesca seu steriliis. Ger. emac. 998.

FRAGARIA non fragifera, vel non vesca. J. B. 2. 395. Raii Syn. ed. 3. p. 254.

Hudson Fl. Angl. ed. 2. p. 222. Lightfoot Fl. Scot. p. 288.

RADIX perennis, nigricans, sublignosa.

CAULES plurimi, spithamei, procumbentes, crassi, suffruticosi, castanei, stipulis hirsutis testi.

FOLIA e furculis annotinis prodeunt, ternata, obovata, ferrata, pilosa, sericea, subrus albida, petio- lis valde pilosus.

STIPULÆ radicale, plurimæ, ovato acuminatae, mem- branaceæ.

PEDUNCULI plurimi, ascendentes, teretes, pilosi, biflori, bracteâ trifoliata instruicti.

FLORES albi, parvi.

CALYX: PERIANTHIVM monophyllum, planum, fe- midicemfidum, fig. 3, ex lacinia, quinque ovato acuminata fuit inter petala, petalis paulo longiora, quinque lanceolata, petalis paulo breviora, omnibus pilosis. fig. 1.

COROLLA: PETALA quinque, alba, parva, subro- tunda, patentia, remota, calyci inferta.

STAMINA: FILAMENTA viginta circiter, in orbe posita, subulata, alba, primum inflexa, de- cimum crecta, corolla breviora; ANTERÆ flavæ, biloculares, fig. 4. 5.

PISTILLUM: GERMINA numeroa, minima, in ca- pitulum collecta, subreniformia; STYLÆ sim- plices, lateri germinis inserti; STIGMATA simplicia. fig. 7, 8, 9.

RECEPTACULUM floris intra germina et filamenta glandulosum seu pulposum, villosum, minia- tum; fructus intra germina pilosum. fig. 6.

SEMINA plurima, exsucca, in capitulum collecta, e flavo fulva, appendiculo tubuloso, fig. 10. 11.

ROOT perennial, blackish and woody.

STALKS numerous, fix or seven inches in length, pro- cumbent, thick, somewhat shrubby, of a chefnut colour, and covered with hairy sti- pile.

LEAVES grow out of the last years shoots, three to- gether, inversely oval, sawed at the edges, hairy, silky, whitish underneath, standing on footstalks which are very hairy.

STIPULE next the root, numerous, oval and pointed, of a membranous texture.

FLOWER-STALKS numerous, ascending, round, hairy, supporting two flowers, and furnished with a three-leav'd bractea.

FLOWERS white and small

CALYX: A PERIANTHIVM of one leaf, flat, divided half way down into ten segments, fig. 3. of those, five which are betwixt the petals are oval, with a long point, somewhat longer than the petals fig. 1. five lanceolate, a little shorter than the petals, and all of them hairy. fig. 1.

COROLLA: five, white, small, roundish, spreading PETALS, remote from each other, and fixed to the calyx. fig. 2.

STAMINA: about twenty FILAMENTA, placed in a circle, tapering, white, at first bending in- wards, afterwards upright, shorter than the corolla; ANTERÆ yellow, having two cavities. fig. 4. 5.

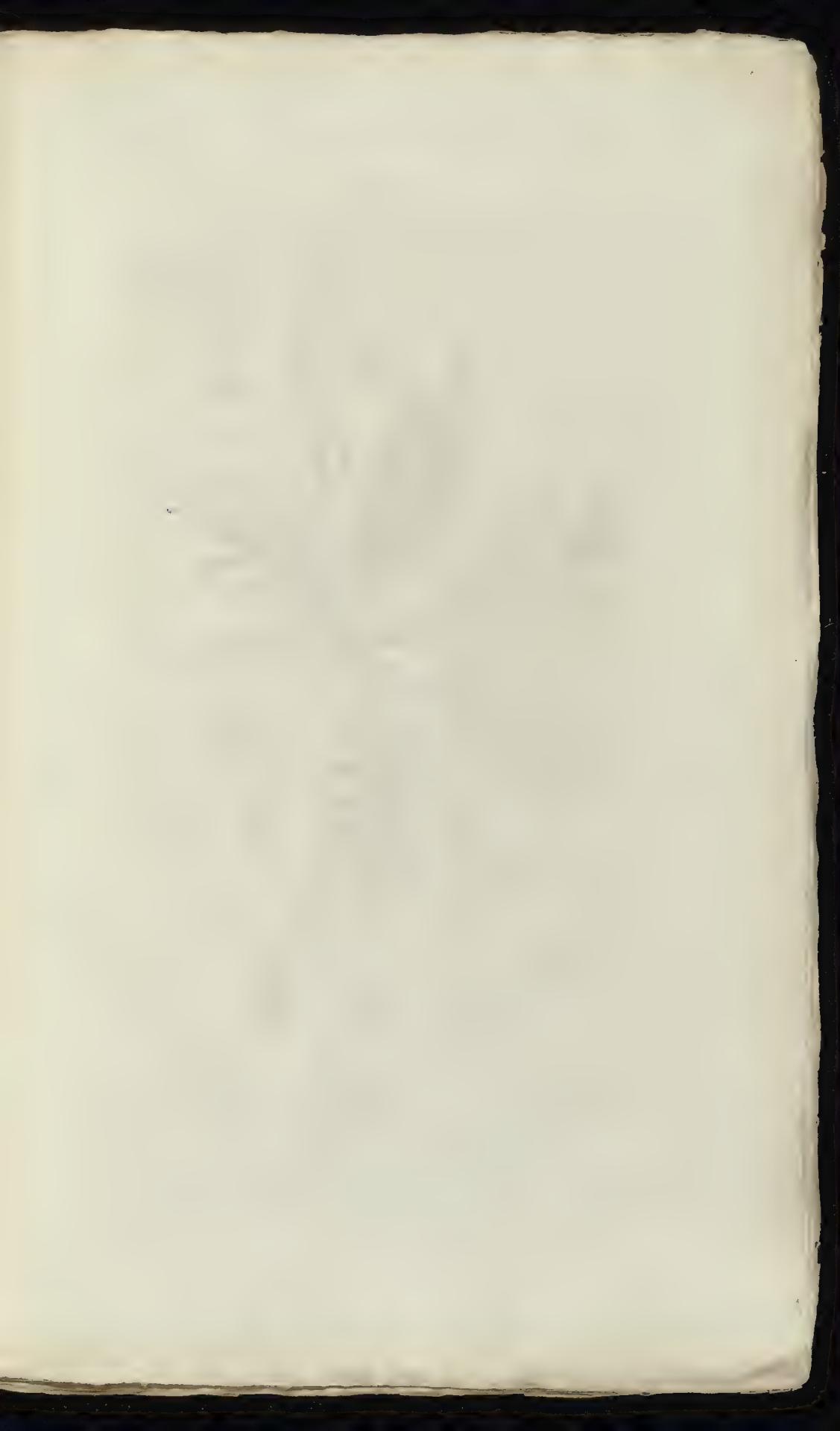
PISTILLUM: GERMINA numerous, minute, forming a little head, somewhat kidney-shaped; STYLES simple, inserted into the side of the germen; STIGMATA simple, fig. 7, 8, 9.

RECEPTACLE of the flower betwix the germina and filaments glandular or pulpy, villosus and of a scarlet colour, of the fruit betwix the germina hairy. fig. 6.

SEEDS numerous, pulpiels, forming a little head, of a yellowish brown colour, with an appen- dage to each somewhat villosus. fig. 10. 11.

THE name of Sterilis by which this species of Strawberry is distinguished, has not been given it because the plant does not produce perfect seed, but because it affords no eatable fruit; its leaves point it out as a Strawberry, but its fructification has a greater affinity with the Potentilla, betwixt which genus and the Strawberry this plant indeed seems to be the link.

In all the woods about London, as also on some heaths, we find it in blossom as early as March, and in June it ripens its seed.





POTENTILLA ANSERINA. SILVER-WEED.

POTENTILLA Lin. Gen. Pl. ICOSANDRIA POLYGYNIA

Cal. 10. fidus. Petala 5. Sem. subrotunda, nuda, receptaculo parvo exucco affixa.

Raii. Syn. Gen. 25. HERBÆ SEMINÆ NUO POLYSPERMÆ.

POTENTILLA Anserina foliis pinnatis ferratis, caule repente, pedunculis unifloris. Lin. Syb. Vegetab.

p. 396. Spec. Pl. p. 710. Fl. Suec. n. 452.

FRAGARIA caule repente, foliis pinnatis ferratis, subtus tomentos, petiolis unifloris. Haller. Biss. 1126.

POTENTILLA Anserina. Scopoli. Fl. Carn. n. 615.

POTENTILLA Baubin. pin. 321. Park. 593.

ARGENTINA Gerard. emac. 993.

PENTAPHYLLOIDES Argentina dicta Raii. Syn. p. 256. Wild Tansy, Silver-weed.

Hudson Fl. Engl. ed. 2. p. 222.

Lightfoot Fl. Scot. p. 268.

Oeder. Fl. Dan. t. 544.

RADIX perennis, ramosa, extus nigro fusca seu albida pro ratione ætatis, fibrillofa, descendens.

CAULES seu potius flagellæ, plures, in longum extensæ, teretes, geniculatae, rubicundæ, pubescentes, repentes.

FOLIA subtus villosa, albido-cinerea, supra pubescens, viridæ, fæpe etiam villosa, cinerea, petiolata, pinnata cum impari: folioliis sessilibus, oppositis, ovalibus, inciso-ferratis; quorum inferiora fonsim minora; radicalia longius petiolata, procumbentia.

STIPULÆ parvifolæ, ovales, acutæ, in ipso petiolo communi inter paria foliolorum, superne sessiles, oppositæ, integerrimæ, subtus pariter villosa.

PETIOLI villosi, supra plani, basi vagina concava, membranaceæ, tenera, pubescens, in petiolum utrinque decurrente.

VAGINÆ caulinæ, h. e stipulae, ad genicula caulis foliarie, apice bifidæ, fæpe multifidæ, ferentes foliolum oblongum dentatum.

FLORES pedunculati, ex vaginis caulis stipulaceis, solitarii.

PEDUNCULI teretes, villosi, uniflori, erecti.

CALYX: PERANTHUM monophyllum, villosum, 10. fidus: laciniis ovatis, imbricatis, patent reflexis; quarum 5 interiores integræ, acutusculæ, basi lutecentes; exteriores 5 obtusifolæ, incisa. fig. 1.

PETALA quinque, lutea, ovata, obtusa, sessilia, calyci inserta. fig. 2.

STAMINA: FILAMENTA plurima, subulata, lutea, calyci inserta, erecta; ANTHÈRE cordata, obtusa, erecta, utrinque planæ. fig. 3.

PISTILLUM: GERMINA plurima, ovata, obusa, alba, villo receptaculi circumdata; STYLI subulati, germinis lateri adnati, lutescentes, staminibus brevioribus, STIGMATA truncata. fig. 4. 5.

RECEPTACULUM barbatum.

FEW plants render themselves more conspicuous by the whiteness of their leaves than the *Potentilla Anserina*, indeed its old name of *Argentina* was derived from this very circumstance; it must be remark'd however that in this particular it is subject to much variation, the leaves being sometimes silvery on both sides, and sometimes entirely green, but it is most commonly found with the upper side of the leaves green, and the under side silvery; the more clayey the soil, the whiter the leaves are generally found to be.

It is a plant which thrives most in moist situations, especially if the soil be clayey, and the water apt to stagnate on it, in such situations it may be found almost every where about London, flowering from July to September.

RAY informs us on very respectable authority that the Boys about Settle in Yorkshire, call the roots of these plants by the name of *Moor*, and that in the winter season they dig them up and eat them, and that he himself had been a witness to their being turned up and greedily devoured by swine—it deserves the consideration of the farmer how far these animals may be render'd useful in this respect, not as to this plant only, but many others which are either noxious or useless.

Its medicinal virtues are wholly out of repute,

ROOT perennial, branched, externally of a dark brown or whitish colour according to its age, furnished with small fibres, and penetrating deep.

STALKS or rather runners, several extended to a considerable length, round, jointed, reddish, downy and creeping.

LEAVES hoary on the under side, of a whitish ash-colour, on the upper side downy, and green, though sometimes also hoary and silvery, standing on footstalks, pinnated, with an odd one at the extremity; the small leaves sessile, opposite, oval, deeply cut in on the edge; the lowermost gradually the smallest; the radical ones standing on longer footstalks than the others and procumbent.

STIPULÆ small, oval, and pointed, placed on the common footstalk itself, betwixt each pair of the small leaves, above sessile, opposite, entire, underneath hoary also.

LEAF-STALKS villous, flat on the upper side, forming a sheath at the bottom, which is hollow, membranous, tender, downy, running down each side of the leaf stalk.

SHEATHES of the stalks or rather the stipulae of the runners, are placed singly at the joints, bifid and often multifid at top, bearing an oblong indented small leaf.

FLOWERS standing on footstalks, proceeding singly from the joints of the runners.

FLOWER-STALKS round, villous, upright, supporting one flower.

CALYX: A PERANTHUM of one leaf, villous, divided into 10 segments, which are ovate, the edges laying one over the other, spreading, and somewhat turned back, the 5 innermost are entire, rather pointed, yellowish at the base, the outermost bluntish and jagged fig. 1.

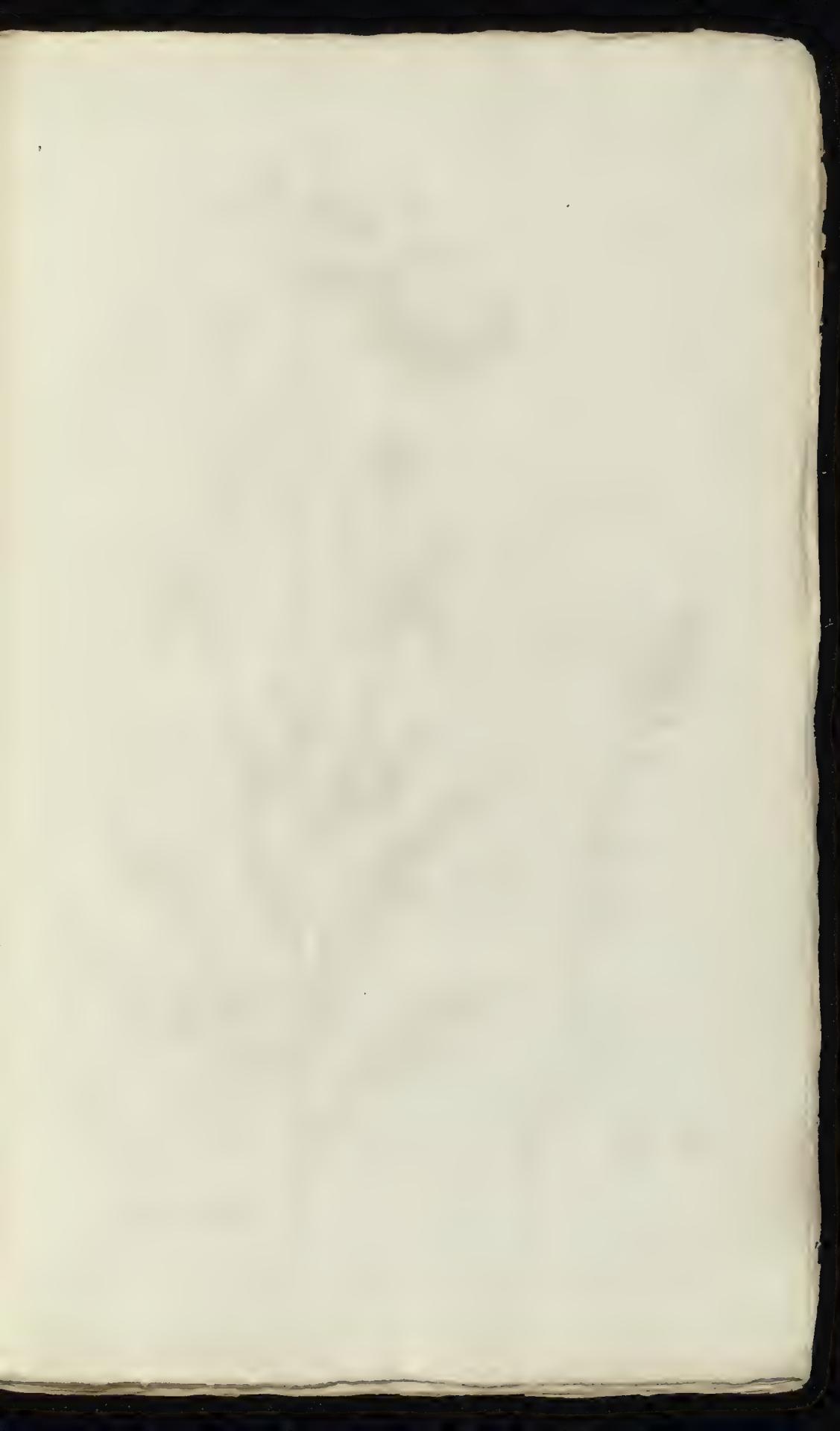
PETALS five, of a yellowish colour, ovate, obtuse, sessile, twice the length of the calyx, very much expanded, and inserted into the Calyx. fig. 2.

STAMINA: numerous FILAMENTS, tapering, yellow, inserted into the Calyx, upright; ANTHÈRE heartshaped, blunt, upright, flat on both sides.

fig. 3.

PISTILLUM: GERMINA numerous, ovate, obtuse, white, surrounded by the hairs, of the receptacle; STYLES tapering, growing out of the side of the germinæ, of a yellowish colour, shorter than the stamina; STIGMATA truncated. fig. 4. 5.

RECEPTACLE hairy.





Papaver Rhoeas.

PAPAVER RHOEAS. SMOOTH-ROUND-HEADED POPPY.

PAPAVER Lin. Gen. Pl. POLYANDRIA MONOGYNIA.

Cor. 4-petala. Cal. 2-phyllo. Capsula 1-locularis, sub stigmate persistente poris dehiscens.

Raii Syn. Gen. 22. HERBÆ VASCULIFERÆ FLORE TETRAPETALO ANOMALÆ.

PAPAVER Rhœas capsulis glabris globosis, caule pilo multifloro, foliis pinnatifidis incisis. Lin. Syst. vegetab. p. 407. Spec. plant. p. 726. Fl. Suec. n. 468.

PAPAVER foliis semipinnatis hispidis fructu ovato glabro. Haller. hifl. n. 1064.

PAPAVER Rhœas Scopoli. Fl. Carn. n. 649.

PAPAVER erraticum majus. Baubin pin. 171.

PAPAVER Rhœas. Ger. enac. 371.

PAPAVER erraticum Rhœas sive sylvestre. Park. 397.

PAPAVER laciniato folio, capitulo breviore glabro annum Rhœas dictum. Raii Syn. p. 308. Red Poppy or Corn Rose.

Hudson. Fl. Angl. ed. 2. p. 230.

Lightfoot. Fl. Scot. p. 269.

RADIX annua, simplex, fibrosa.

CAULIS pedalis ad bipedalem, erectus, ramosus, teres, basi purpurascens, hispidulus, pilis basi bulbosis.

FOLIA sessilia, basi subvaginantia, utrinque hirsuta, pinnatifida, incisa, laciniis seu foliolis inæqualiter dentato ferratis, dentibus margine revolutis, apice callosis et spinula terminatis.

PEDUNCULI erecti, uniflori, teretes, hispidae, pilis patentibus.

CALYX: PERIANTHIUM diphyllum, ovatum, hispidulum, foliis concavis, margine membranaceis, deciduus.

COROLLA: PETALA quatuor, magna, patentia, naequalia, coccinea, ad basin maculi nigrae, nitidæ notata.

STAMINA: FILAMENTA numerosa, purpurea, capillaria; ANTHÈRÆ subrotundæ, complicitæ; POLLEN viride, fig. 1. 2.

PISTILLUM: GERMIN ovatum, truncatum; STYLUS nullus, STIGMA convexum, radiatum; radius circa decem purpureis, fig. 3.

PERICARPIUM: CAPSULA ovata, apice truncata, et crenata, lavis, lineis elevatis tot quo stigmata notata, stigmate piano persistente crenato testa, fig. 4.

SEMINA plurima, minima, ex atro-purpurascientia, fig. 5.

ROOT annual, simple and fibrous.

STALK from one to two feet high, upright, branched, round, purplish at bottom, somewhat hispid, the hairs bulbous at the base.

LEAVES sessile, forming a kind of sheath at bottom, hairy on both sides, pinnatifid and jagged, the small leaves into which the large one is divided unequally toothed, or sawed, each tooth rolled back at the edge, callous at top and terminated by a small spine.

FLOWER-STALK upright, each supporting one flower, round, hispid, the hairs projecting horizontally.

CALYX: a PERIANTHIUM of two leaves, ovate, hispid, the leaves hollow, membranous on the edge and deciduous.

COROLLA: four petals, large, spreading, unequal, of a bright scarlet colour, marked at the base with thinning black spot.

STAMINA: FILAMENTS numerous, purple and very slender; ANTHÈRÆ roundish, flatten'd: POLLEN green, fig. 1. 2.

PISTILLUM: GERMIN ovate, cut off at top; STYLE wanting; STIGMA convex and radiated, rays about ten of a purple colour, fig. 3.

SEED-VESSEL, shape of an egg cut off at top, where it is scolloped, smooth, mark'd with many raised lines as there are stigmata, and covered with the stigma which is permanent, flat, and also scolloped on the edge, fig. 4.

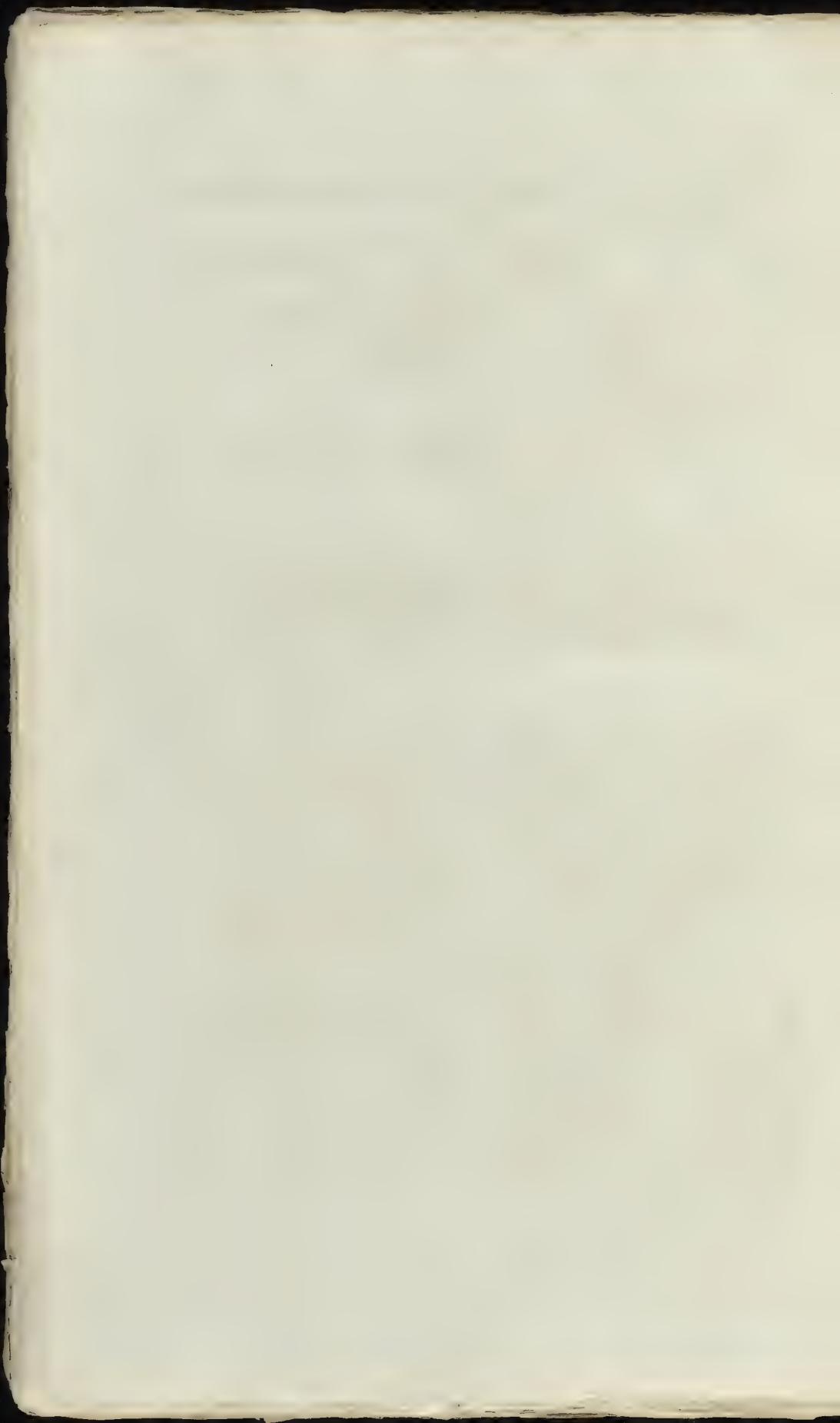
SEEDS numerous, very minute, of a dark purple colour, fig. 5.

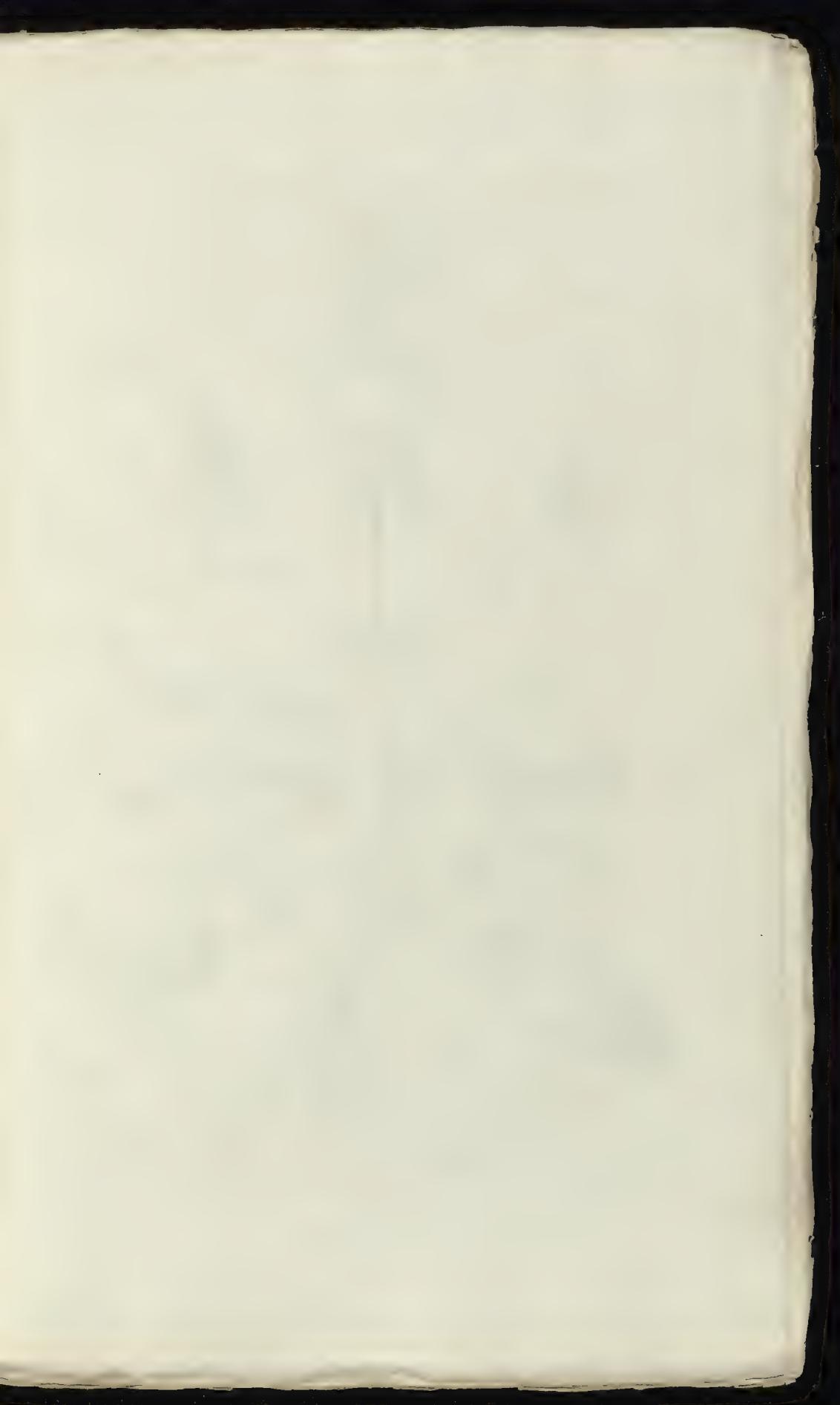
WE have growing wild in the neighbourhood of London, four different species of Poppy that have some affinity both in their foliage and flowers to one another, viz. the *Papaver Rhœas* smooth-round-headed Poppy, *Papaver dubium* smooth-long-headed Poppy, *Papaver hybridum* prickly-round-headed Poppy, and *Papaver Argemone* prickly-long-headed Poppy, of these the first, which is here figured is by far the most common; growing chiefly in Corn-fields, it has acquired generally the name of Corn Poppy, in some countries it is distinguished by the name of Red-Weed.

A Syrup made from an infusion of the flowers is used by the Apothecary, more for the sake of the beautiful colour it imparts to the medicine, than from its possessing any active principle; the Gardener is careful to cultivate its numerous varieties, while the Farmer is no less anxious to root it from his fields, in which it is often so predominant as to appear like the real crop.

Although a Corn-field be its most usual place of growth it is nevertheless frequently found on dry banks and on walls, and according to such situations it varies extremely in its foliage, but constantly retains two of its striking characters, viz. the round or rather urn-shaped form of its capsules, and the projecting hairs on the lower part of the stem; these always distinguish it from the *dubium* to which it is very nearly allied.

It flowers from June to August.







Betonica officinalis

BETONICA OFFICINALIS. WOOD BETONY.

BETONICA *Lin. Gen. Pl. DIDYMANIA GYMNOGEMERIA CUL. aristatus. Corolla lab. super. ascendens, planifuculum; Tubus cylindricus.*

Raii Syn. Gen. 14. SFRUTICES ET HERBÆ VERTICILLATE.

BETONICA officinalis spica interrata, corollarum laciniæ labii intermedia emarginata. *Lin. Spec. Pl. p. 810. Pl. Scutic. n. 515.*

BETONICA foliis petiolatis, limis cordatis, superioribus ovatis, crenatis, spica brevi, foliis infidente. *Hiller H. p. n. 264.*

BETONICA officinalis Scopoli *Fl. Carniol. p. 422.*

BETONICA purpurea *Baubin pim.*

BETONICA vulgaris flore purpureo *Parkinson. p. 238. Gerard emac. 714. Raii Syn. p. 238. Wood-Betony. Hudson. Fl. Engl. ed. 2.*

Ligibfoot Fl. Scot. p. 311.

RADIX perennis, crassitie minimi digiti, horizontalis, subligosa, e luteo fusca, transversim rugosa, fibris plurimis albidis, tenacibus, fibrillosis, alte descendenteribus instructa.

CAULIS pedalis aut ultra, erectus, plerumque simplex, in hortis ramosus, tetragonus, angulis obtusis, lateribus duobus magis excavatis, caulisculus pilis rigidulis, deorum veris, sub appressis, geniculatus, geniculus superne remotis.

FOLIA radicalia longe petiolata, oblongo-cordata, crenata, obtusa, venoso-rugosa, subnuda, undique minutum punctata, punctis excavatis, margine ciliata, *caulina opposita*, angustiora, potius ferrata quam crenata, reflexa, marginibus saepius revoluta.

FLORES purpuri, spicati.

SPICA terminalis, oblonga, e plurimis verticillis sessilibus, approximatim composta, inferioribus simplicibus remotis.

BRACTÆ plurime, verticillis subiectæ, lanceolatae, clype paulo breviores.

CALYX : *PERIANTHUM* tubulatum, interne villosum, turbatorem, quinquedentatum, aristatum, persistens. fig. 1.

COROLLA monopetalous, *Tubus* incurvus, infra glaber, albus, supra purpurus, extus et intus pubescens, calyx longior, *Labium superius* subrotundum, integrum, planum, erectum, inferioris trifidum; *laciniula media* latior, subrotunda, emarginata. fig. 2.

STAMINA : FILAMENTA quatuor, subulata, alba, pubescens, tubo longiora, quorum duo inferiora paulo breviora; ANTHERAÆ e rubro purpurecentes, bilobæ, lobis subrotundis. fig. 3.

PISTILLUM : GERMIN quadripartitum; STYLUS subulatus, albidus, glaber, staminibus paulo longior: STIGMA bifidum, fig. 4. 6.

NECTARIUM fig. 5.

SEMINA quatuor, fusca, glabra, triquetra, latere exteriorē convexa, interiorē gibbosæ. fig. 7.

ANTONIUS MUSA Physician to the Emperor AUGUSTUS wrote an entire book on this plant, whence it began to be held in such esteem in Italy as to occasion the Proverb *vende la tonica et compra la Betonica* that is sell your coat and buy Betony and when they wished to extol a person they would say *Tu hai più virtù, che non ka la Betonica, you have more virtues than Betony.* *Math. in Difcor. p. 943. Raii Hist. p. 550.*

The leaves and flowers of Betony have an herbaceous roughish iowichabit which is somewhat bitterish raffe accompanied with a very weak aromatic flavour. This herb has long been a favourite among writers on the *Materia Medica* who have not been wanting to attribute to it abundance of good qualities. Experience does not discover any other virtue in Betony than that of a mild corroborant; as such, an infusion or light decoction of it may be drank as tea, or a tincture in rectified spirit given in suitable doses, in laxity and debility of the viscera, and disorders proceeding from thence. The powder of the leaves, snuffed up the nose, provokes sneezing, and hence Betony is sometimes made an ingredient in sternutatory powders: this effect does not seem to be owing, as is generally supposed to its peculiar stimulating quality in the herb but to the rough hairs which the leaves are cover'd with. The roots of this plant differ greatly in quality from the other parts: their raffe is bitter and very nauseous: taken in a small dose they vomit and purge violently, and are supposed to have somewhat in common with the roots of Hellebore. *Locut's Disp. p. 103.*

Betony grows abundantly in all our woods, about Town, and on some of the Heaths, flowering in July, August and September.

RAY observes that it is sometimes found with white and sometimes with flesh-colour'd blossoms.

ROOT perennial, the thickness of the little finger, horizontal, somewhat woody, of a yellowish brown colour, wrinkled transversely, and furnished with numerous, long, whitish, tough, fibrous strings.

STALKS a foot or more in height, upright, generally simple, in gardens branched, four-corner'd, the corners obtuse, and two of the sides more deeply hollowed than the others, roughish, the hairs, somewhat rigid, turning downward and press'd towards the stalk, jointed, the joints near the top of the stalk removed far from each other.

LEAVES next the root standing on long footstalks, of an oblong heart-shaped figure, bluntly notched, obtuse, veiny and somewhat wrinkled, covered with few hairs, but dotted all over with small hollow points, the edge fringed with hairs, those *on the stalk*, opposite, narrower, and rather serrated than crenated, hanging down, the edges generally curled back.

FLOWERS purple, growing in a spike.

SPIKE terminal, oblong, composed of several sessile clove whisks, the lowestmost of which are most commonly remote from the others.

BRACTÆ numerous, placed under each whisk, lanceolate, and a little shorter than the Calyx.

CALYX : a *PERIANTHUM* tubular, internally villous, broadest at top, having five teeth, which terminate in five long points, and are permanent. fig. 1.

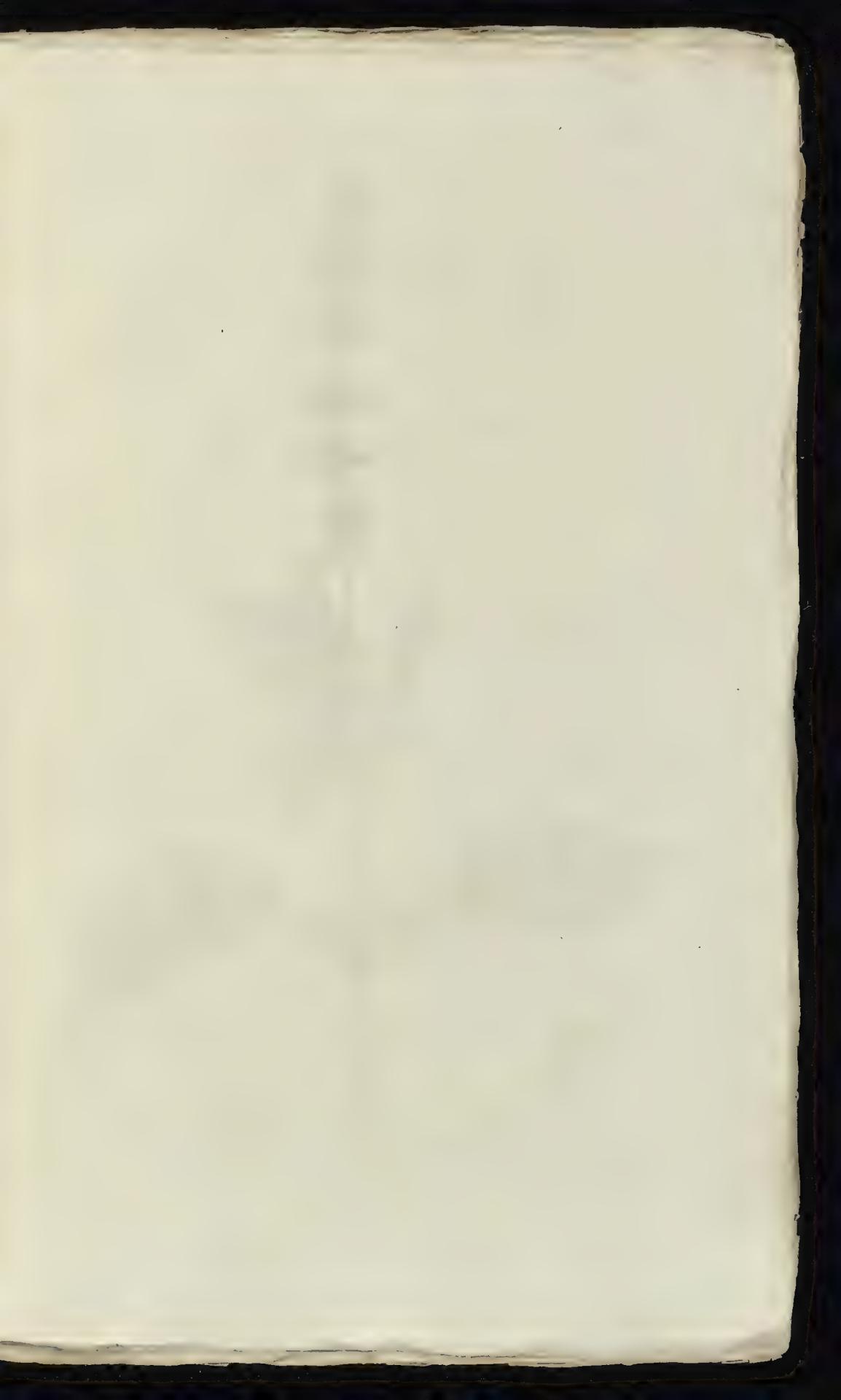
COROLLA monopetalous; the *Tube* bending inwards, below smooth and white, above purple, downy both within and without, and longer than the calyx; the upper *Lip* roundish, entire, flat, and upright, the lower one divided into three segments, the middle one of which is broader than the others, roundish with a notch in the middle. fig. 2.

STAMINA : four FILAMENTA, tapering, white, and downy, longer than the tube, of which the two lowermost are somewhat the shortest; ANTHERAÆ of a reddish purple colour, composed of two roundish lobes. fig. 3.

PISTILLUM : GERMIN divided into four parts; Style tapering, whitish, smooth, somewhat longer than the Stamina; STIGMA bifid. fig. 4. 6.

NECTARY fig. 5.

SEEDS four, brown, smooth, three corner'd, the outermost side convex the innermost gibbosæ. fig. 7.





Stachys sylvatica.

STACHYS SYLVATICA. HEDGE NETTLE.

STACHYS Lin. Gen. Pl.

DIDYNAMIA GYMNOSEMPERIA.

Corolla lab. super. fornicate, lab. inferius lateribus reflexum, intermedia majore emarginata. *Stamina* deflora vix latera reflexa.
Raii Syn. Gen. 24. SUFFRUCTICES ET HERBÆ VERTICILLATÆ.

STACHYS sylvatica verticillis sexfloris, foliis cordatis petiolatis. Lin. Syb. Veg. p. 447. Sp. Pl. 811.
Fl. Suec. n. 526.

CARDIACA foliis cordatis ferratis, verticillis nudis, spicatis. Haller. Hist. n. 216.

STACHYS sylvatica. Scopoli Fl. Carniol. n. 706.

JAMMIUM maximum sylvaticum foetidum. Baub. pin. 231.

GALEOPSIS vera. Ger. emac. 709.

GALEOPSIS legitima Dioscoridis. Park. 608. Raii Syn. ed. p. 343. Hedge-Nettle.

GALEOPSIS five urtica iners magna foetidissima. J. B. III. 853.

Hudson Fl. Engl. ed. 2. p. 259. Lightfoot Fl. Scot. p. 312.

RADIX perennis, repens.

CAULIS erectus, pedalis ad tripedalem, quadrangula-
ris, hirsutus, ramosus.

RAMI oppositæ, suberectæ, cauli similes.

FOLIA petiolata, cordata, acuta, ferrata, venosa, utrin-
que hirsuta.

PETIOLÆ hirsuta, longitudine foliorum.

FLORES saturat at vivide purpurei, verticillati, lax-
spicati, verticillis sexfloris, brevibus pedicel-
lis insidentibus; ad singulum, geniculum feta
duodecim, utrinque sex, floribus subjeætae.

CALYX: PERIANTHII monopllyllum, campanula-
tum, hirsutum, vifidum, punctis prominenti-
scabrum, purpuratens, quinquedentatum,
dentibus acutis, patentibus, supremo paulo
longiore. fig. 1.

COROLLA monopetalæ, ringens, purpurea, tubus bre-
vissimus, albus, fauce tenuior, apice strangu-
latus, et interne villosus; Faux nitida, sub-
cylindracea, paululum incurvata, superne vil-
lis minimis adspersa; Labium superius ovatum,
obtusum, integerimum, inferne concavum,
superne convexum, vifidulum, Labium in-
ferius majus, trifidum; also pulchre varie-
gatum, lacinia intermedia subemarginata,
replicata. fig. 2. 3. 4.

STAMINA: FILAMENTA quatuor, quorum duo paulo
longiora, purpurae, nitida, medio paululum
incrassata, et pilosa; ANTHÆRE primum ob-
scure violacea, demum nigricantes; POLLEN
album. fig. 5.

PISTILLUM: GERMIN quadrupartitum; STYLUS fili-
formis; situ et longitudine staminum; STIG-
MA bifidum, acutum. fig. 6. 7. 8.

NECTARIUM: Glandula majuscula, totam basin ger-
minis cingens. fig. 9.

PERICARPIUM nullum; Calyx contortus

SEMINA quatuor, ovata, angulata. fig. 10.

ROOT perennial, and creeping.

STALK upright, from one to three feet high, square,
hirsute and branched.

BRANCHES opposite, nearly like the stalk.

LEAVES standing on footstalks, heart-shaped, pointed,
ferrated, veiny, hirsute on both sides.

LEAF-STALKS hirsute, the length of the leaves.

FLOWERS of a deep but bright colour, growing
in whorls and forming a loose spike, about six
flowers in each whorl, sitting on short flower-
stalks, at each joint, twelve fætæ or fine pointed
leaves, fix on each side, placed under the
flowers.

CALYX: A PERIANTHII of one leaf, bell-shaped,
hirsute, vifid, rough with little prominent
points, of a purplish colour, having five pointed
spreading teeth, of which the uppermost
is somewhat the longest. fig. 1.

COROLLA monopetalous, ringent, purple, the tube
very short, white, slender than the faux,
strangled at top where it is villous on the in-
side; Faux shining, somewhat cylindrical,
bending a little down, on the upper part cov-
ered with numerous short hairs; the upper
Lip ovate, obtuse, entire, below concave,
above convex, and somewhat vifid, the lower
Lip large, trifid, beautifully variegated with
white, the middle segment slightly notched,
and having its sides folded back. fig. 2. 3. 4.

STAMINA: four FILAMENTA, two of which are a
little longer than the others, purple, shining,
thickened a little in the middle and hairy;
ANTHÆRE at first of a dull violet colour, fi-
nally blackish; POLLEN white. fig. 5.

PISTILLUM: GERMIN divided into four parts; STYLE
thread-shaped, situated with and of the same
length as the stamina; SIGMA bifid, and
pointed. fig. 6. 7. 8.

NECTARY: a largith Gland furrounding the whole
base of the germen. fig. 9.

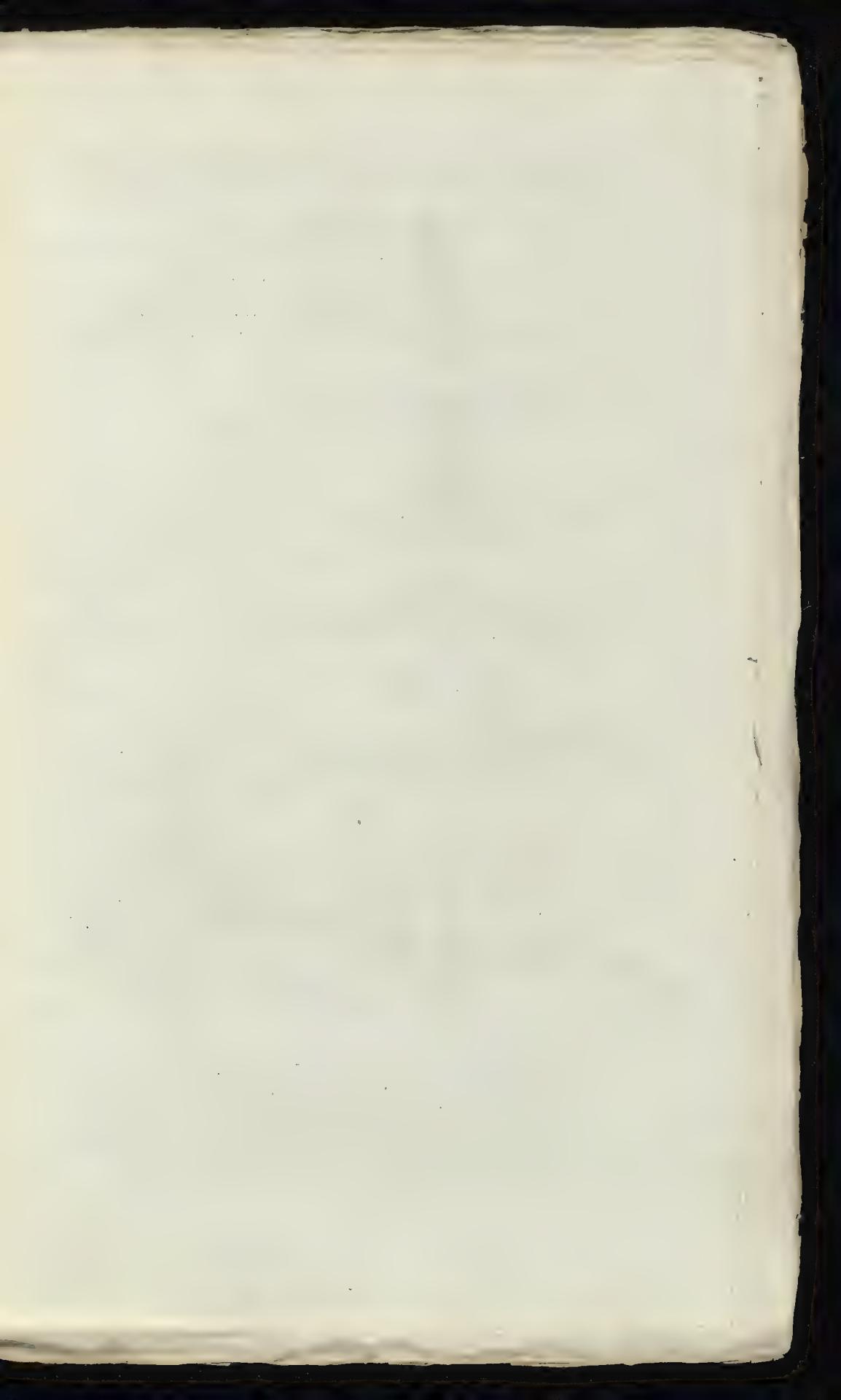
SEED-VESSEL none, the Calyx containing.

SEEDS; four ovate and angular. fig. 10.

In the parts of fructification, there is a considerable similiarity betwixt this species and the palustris, but in the form of its leaves it differs very materially.

It grows in almost every shady ditch about London and elsewhere, and flowers in June and July, its blossoms have sufficient beauty to recommend them, and they might perhaps be more an object of admiration, did not the plant, on being in the least bruised, smell disagreeably, if not bruised, its scent is rather of the agreeable kind.

The Snail, excepted few animals, appear to relish it.



STACHYS PALUSTRIS. CLOWN'S ALLHEAL.

STACHYS Lin. Gen. Pl. DIDYNAMIA GYMNOSPERMIA.

Corolla lab. super. fornicateum, lab. inferius lateribus reflexum, intermedia majore emarginata. STAMINA deflorata verius latera reflexa.

Raii Syn. Gen. 14. SUFFRUTICES ET HERBÆ VERTICILLATE.

STACHYS palustris verticillæ subflexoris, foliis linearis lanceolatis semiamplexicaulibus sessilibus. Lin. Syst. Vegetab. p. 447. Sp. Pl. 811. Fl. Succ. n. 528.

STACHYS foliis hirsutis, elliptico-lanceolatis, breviter petiolatis, verticilis spicatis. Haller Hif. n. 257.

STACHYS palustris. Scopoli Fl. Carn. n. 707.

STACHYS palustris fetida. Baub pin. 236.

SIDERITIS Anglicæ strumosa radice. Park. 587.

PANAX coloni. Gerard. emac. p. 1005. Raii Syn. p. 242. Clown's Allheal.

Lightfoot Fl. Scot. p. 313.

Hudson. Fl. Angl. ed. 2. p. 259.

RADIX perennis, repeñis, stolonibus plurimis, albis, per terram in longum extensis, quorum extremitates sub finem astatis in tubera intumescunt.

CAULIS bipedalis, erectus, ramosus, fistulosus, quadrangularis, lateribus planiusculis, angulis hispidulis, pilis deorum veris, geniculatus, geniculis pilosis, purpureis.

RAMI cauli similes.

FOLIA opposita, sessilia, subamplexicaulia, lanceolata, patens, sciastra, subugola, nervo medio subtus scabriuscuso.

FLORES verticillati, spicati, pallide purpurei, verticillis decemfloris, octo in circulum dispositis, uno ut. inque superimposito.

SPIRA spithamea, &c. &c.

BRACTEÆ ovato-acuminatae, integerimæ, hirsutæ, trinervæ, deflexæ.

CALYX: PERIANTHIUM monophyllum, tubulatum, quinquefidum, hirsutulum, purpurascens, lacinia decem elevatis notatum, ore patulo, dentibus subaequalibus, acuminatis. fig. 1.

COROLLA monopetala, ringens, tubus brevissimus, cylindraceus, pilis interne coronatus, fau oblonga, compressissimæ, subincurvata, punctis duobus prominulis ad basim labii superioris, labium superius erectum, subovatum, fornicateum, emarginatum, superius vifidum, labium inferius majus, trifidum, albo et purpureo pulchre variegatum, lacinula intermedia maxima, concava. fig. 2. 3. 4.

STAMINA: FILAMENTA quatuor, quorum duo paulo breviora, ad lensem subpiloia, medio crassiora, rubicunda, nitida; ANTHÈRE e purpureo-nigricantes; POLLEN album. fig. 5. 6.

PISTILLUM: GERMEN quadripartitum; STYLUS filiformis longitudine staminum; STIGMA bifidum, acutum. fig. 7. 8. 9.

ROOT perennial, creeping, shoots numerous, white, extending under ground to a great length, their extremities at the close of the summer becoming tuberous.

STALK two feet high, upright, branched, hollow, four corner'd, the sides flattish, the corners somewhat hispid with hairs which turn downward, jointed, the joints hairy, and purple.

BRANCHES like the stalk.

LEAVES oppposite, sessile, slightly embracing the stalk, lanceolate, spreading, serrated, somewhat wrinkly, the midrib on the under side of the leaf roughish.

FLOWERS of a pale purple colour, growing in whirls which form a spike, in each whirl is ten flowers, eight placed circularly, and one on each side above them.

SPIKE six or eight inches high.

FLORAL-LEAVES ovate and pointed, entire, hirsute, threerib'd, and turned downward.

CALYX: a PERIANTHIUM of one leaf, tubular, divided into five segments, slightly hirsute, purplish, marked with ten elevated lines, the mouth open, the teeth nearly equal and pointed. fig. 1.

COROLLA monopetalous, ringent; tube very short, cylindrical, crowned internally with hairs; mouth oblong, somewhat flattened and a little bent, marked with two prominent dots at the base of the upper lip; upper lip upright, somewhat ovate, arched, nicked, and vifid at top; the lower lip larger, divided into three segments, beautifully variegated with white and purple, the middle segment very large and hollow. fig. 2. 3. 4.

STAMINA: four FILAMENTS, two of which are somewhat shorter than the other two, hairy when magnified, thickset in the middle, reddish and thinning; ANTHÈRE, of a purplish black colour; POLLEN white. fig. 5. 6.

PISTILLUM: GERMEN divided into four parts; STYLE thread shaped, the length of the flamina; STIGMA bifid, and pointed. fig. 7. 8. 9.

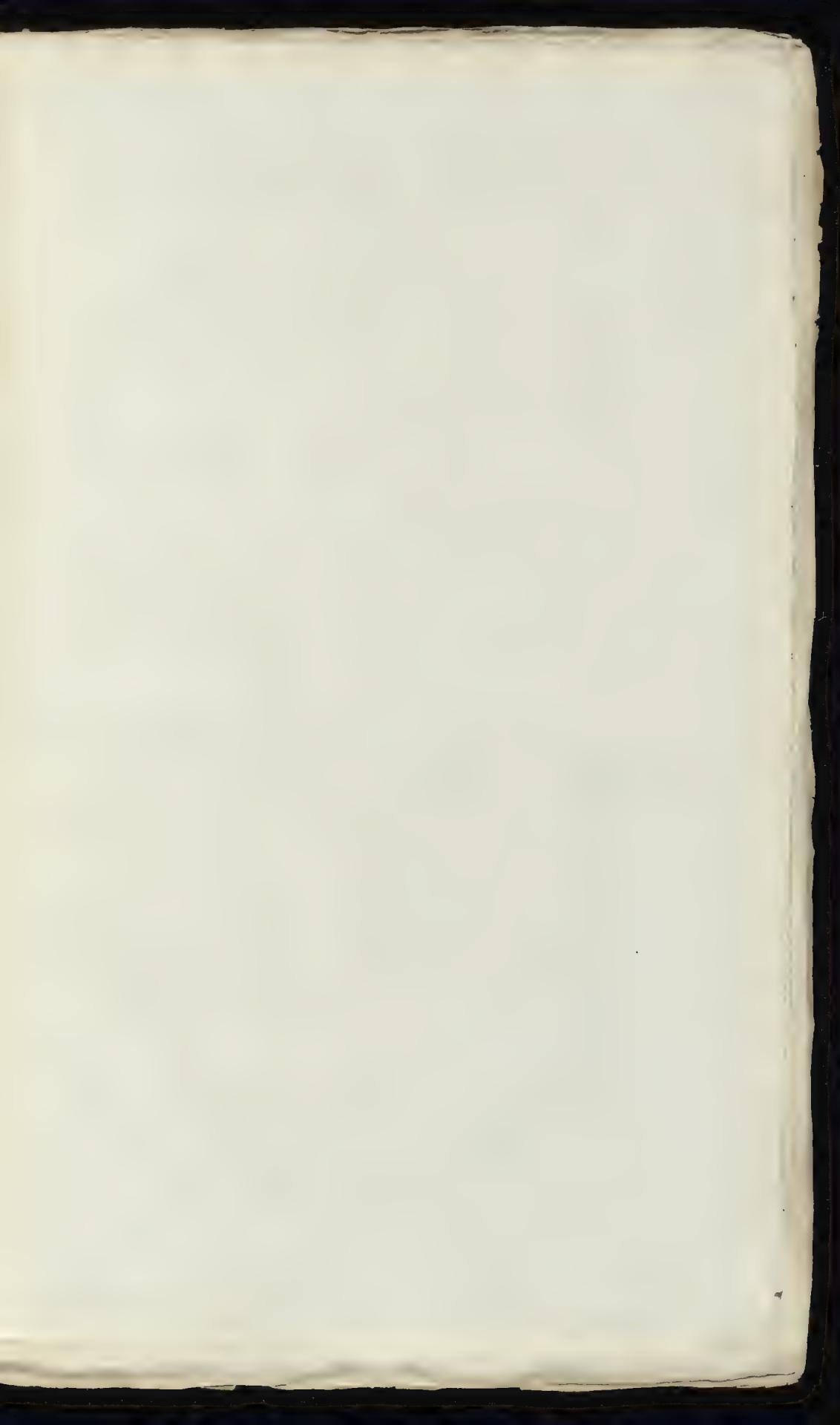
GERARD has been extremely lavish in his praises of this plant as a vulnerary, whence it has acquired its name of *Clown's Wound-wort*, or *All-heal*. He mentions the case of a labouring man, who in reaping cut a deep gash in his leg, which by the application of this-herb was presently healed, and which doubtless would have healed equally soon from the application of any other simple herb, or a little dry lint. In found constitutions nature often performs wonders in this way, which generally are attributed to the application.

It behoves the Farmer to know it, as it is a very noxious plant in many corn-fields, increasing very much by its roots, which towards the close of the summer become tuberous at their extremities; it encroaches also by seed. Hogs are said by LINNAEUS to be fond of the roots; when the crop is off they may probably be turned into those fields where the plant abounds to great advantage.

It is not confined to corn fields, but is often met with by road sides, especially in moist situations. It flowers in July and August.



Stachys palustris.



SCUTELLARIA galericulata. Common HOODED WILLOW-HERB.

SCUTELLARIA Lin. Gen. Pl. DIDYNAMIA GYMNOSPERMIA. Calyx ore integro: post florescientiam clauso, operculato.

Raii Syn. Gen. 14. SUFFRUTICES ET HERBE VERTICILLATE.

SCUTELLARIA galericulata foliis cordato-lanceolatis crenatis, floribus axillaribus. Lin. Synt. Vegetab. p. 457. Sp. Pl. 835. Fl. Suecic. n. 538.

CASSIDA foliis oblonge cordatis crenatis verticillis nudis bifloris. Haller Hift. 280.

CASSIDA galericulata. Scopoli Fl. Carniol. 74.

LYSIMACHIA cærulea galericulata, seu Gratiola cærulea. Baub. pin. 246.

LYSIMACHIA galericulata. Gerard. emac. 477.

GRATIOLA cærulea, f. latifolia major. Park. 221.

CASSIDA palustris vulgarior flore cæruleo. Raii Syn. p. 244. Hooded Willow-herb.

Hudson. Fl. Angl. p. 265.

Lightfoot Fl. Scot. 320.

RADIX perennis, tenuis, geniculata, alba, repens.
CAULES pedales aut bipedales, erecti, quadrati, lateribus concaviflexi, bilineatis, geniculati, rigiduli, ramosi, ramis oppositis, tuberculatis.

FOLIA oblongo-cordata, obtusiuscula, inaequaliter cre-
nata, superiora acuta.

BRACTÆ duæ, minimæ, setaceæ, ad basin pedunculi.

FLORES bini, secundi, cærulei, villosi, subtus albidi.

CALYX: PERIANTHUM monophyllum, brevissimum, tubulatum: ore truncato, squamula incumbe-
tente operculi instar clavulæ. fig. 1.

COROLLA monopetala, ringens. Tubus brevissimus,
retrosum flexus. Faux longa, compresa. La-
bium superius concavum, trifidum: lacrima media
concava, emarginata; lateralia planis, acutis-
culis, intermedia subjectis. Labium infe-
rius latius, emarginatum, fig. 2.

STAMINA: FILAMENTA quatuor alba, medio cras-
fiora et ad unum latu villosula, duo breviora:
ANTHERÆ parvæ, luteæ. fig. 3.

PISTILLUM: GERMIN quadripartitum; STYLUS superne paululum incrassatus. STIGMA sim-
plex, incurvatum, acuminatum. fig. 4. 5. 6.

PERICARPIUM nullum, Calyx bipartibile, operculo

clausus, capsule vicem gerens.

SEMINA 1 ad 4 subrotunda, pallide fusca, super-
ficie scabra. fig. 9. 10.

RECEPTACULUM feminum subrotundum. fig. 8.

ROOT perennial, slender, jointed, white and creeping.
STALKS from one to two feet high, upright, square,
the sides a little hollow'd and mark'd with
two lines, jointed, stiffish, branched, the
branches opposite and nearly upright.

LEAVES of an oblong heart shape, somewhat blunt,
standing on footstalks, rather wrinkly and
unequally crenated, those on the top of the
plant pointed.

FLORAL-LEAVES two, very small and setaceous,
at the base of the flower stalks.

FLOWERS growing in pairs, one way, of a blue col-
our, downy, and whitish underneath.

CALYX: a PERIANTHUM of one leaf, very short,
and tubular; the mouth as if cut off, having
a scale on it which seems to do the office of
a lid. fig. 1.

COROLLA monopetalous and ringent. Tube very
short and bent backwards. Throat long, com-
presa. upper Lip hollow, and trifid; the middle
segment hollow and nicked; the side ones
flat, pointed and placed under the middle one,
Lower Lip broad and nicked. fig. 2.

STAMINA: four white FILAMENTS, thickest in the
middle and a little villous on one side, two
shorter than the others; ANTERAE small
and yellow. fig. 3.

PISTILLUM: GERMIN divided into four parts, STYLE
towards the top a little thickend; STIGMA
simple, hooked and pointed. fig. 4. 5. 6.

SEED-VESSEL: none, the Calyx which splits into
two parts, being closed by its lid answers
the purpose of a capsule.

SEEDS from one to four, roundish, of a pale brown
colour, with a roughish surface. fig. 9. 10.

RECEPTACLE of the seeds roundish. fig. 8.

BOTANY would certainly please more in the study of it, were the Genera as in the present instance distinctly characterized, the singular and curious construction of the Calyx in this genus is very deserving of a minute attention.

This species of Scutellaria grows commonly on the edges of rivers and ponds, and flowers in June, July and August.

It has a very encroaching root, and hence should cautiously be introduced into the Garden.

HALLER attributes to it the smell of Garlick which it scarcely merits.



Scutellaria galericulata

D. C. M. Smith

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ANTIRRHINUM SPURIUM. ROUND-LEAVED FLUELLIN.

ANTIRRHINUM Lin. Gen. Pl. DIDYNAMIA GYMNOSEPERMIA.

Cal. 3. phyllus. Corolla basi deorsum prominens, nectarifera. Capsula 2-locularis.

Raii Syn. Gen. 18. HERBÆ FRUCTU SICCO SINGULARI, FLORE MONOPETALO.

ANTIRRHINUM *spurium* foliis ovatis alternis, caulibus procumbentibus. *Lin. Syst. Vegetab.* p. 464.
Sp. Pl. 851.

ANTIRRHINUM caule procumbente, foliis villosis, ovatis, imis conjugatis, superioribus alternis. *Haller.*
Hjfl. p. 771.

ANTIRRHINUM *spurium*. *Scopoli Fl. Carniol.* 771.

ELATINE folio subrotundo. *Baubin pin.* 252. *Park.* 533.

VERONICA foemina Fuchii seu Elatine *Ger. em.* 625.

LINARIA Elatine dicta folio subrotundo.

Raii Syn. p. 282. Round-leaved Female Fluellin.

Hudson. Fl. Angl. ed. 2. p. 272.

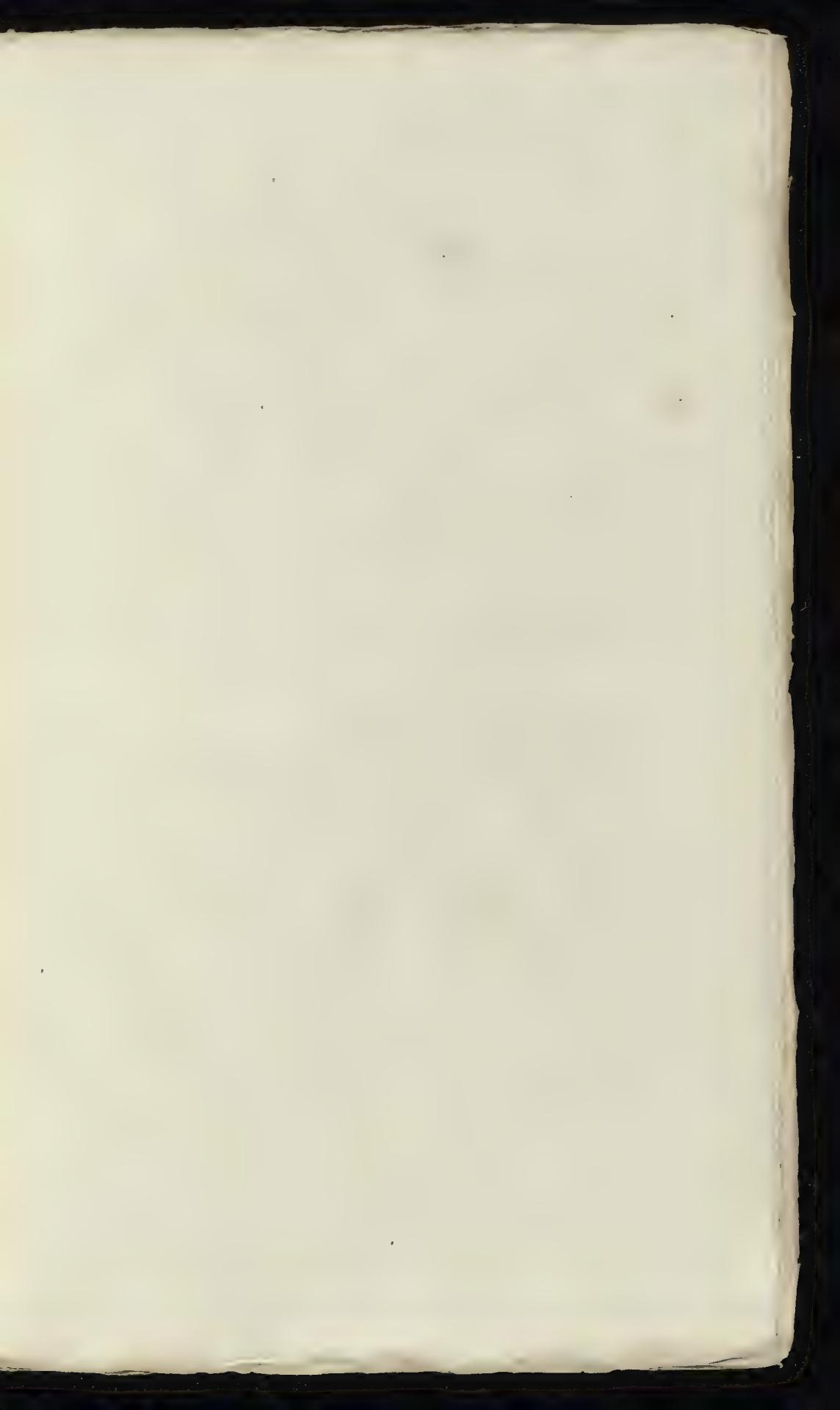
The *Antirrhinum spurium* bears so great an affinity in its habit and fructifications (*vid. fig. 1, 2, 3.*) to the *Elatine*, that it would be superfluous to describe it minutely; it is sufficiently distinguished from that plant by its leaves alone, which in this species are always round, in that hastate, at least those of the stalk, for in both species the leaves next the root are roundish and generally indented; of the two the *spurium* is the largest plant.

Although LINNÆUS has given it the name of *spurium*, there is no reason to suppose it the spurious offspring of the *Elatine*, as the two plants generally grow separate. About *Allon*, in *Hampshire*, the *spurium* abounds in many corn fields, without the least mixture of the *Elatine*; and about *Coomb-wood*, in *Surry*, the *Elatine* may be found in plenty, without the least traces of the *spurium*: while in some counties they grow promiscuously in the same field.

The round-leaved is by far the scarcest plant near town; I found it last July tolerably plentiful and in blossom, in a corn field betwixt *Beckenham* and *Shirley Common*.



Antirrhinum majus





Brassica muralis

BRASSICA MURALIS. WILD ROCKET.

BRASSICA Linnæi Gen. Pl. TETRADYNAZIA SILIQUOSÆ.

Cal. erectus, connivens. Sem globoſa. Glandula inter flamina breviora et pistillum, interque longiora et calyces.

Raii Syn. Gen. 21. HERBÆ TETRAPETAZ SILIQUOSÆ ET SILICULOSÆ.

BRASSICA muralis foliis lanceolatis finuato serratis laeviusculis, caule erecto glabro. Hudſon Fl. Angl.

fig. 290.

ERUCA foliis glabris, pinnatis, pinnis linearibus difformibus. Haller hift. n. 461.

ERUCA sylvestris. Matt. in Dicſ. p. 531. cum iconē.

ERUCA tenuifolia perennis flore luteo. J. B. 2. 861.

ERUCA sylvestris. Gerard emac. 246.

ERUCA sylvestris vulgarior. Parkinson. 818.

ERUCA sylvestris major vulgarior frētens. Hift. Ox. II. 230. Raii Syn. p. 296. Wild Rocket.

RADIX perennis, sublignosa, intra muros profunde penetrans, vix evellanda.

CAULIS fœſquipedalis, erectus, ramosus, teres, bafi fulbignosus, perennans.

FOLIA pinnatifido-lacinia, glabra, patentia, odoris ingratia.

CALYX priuquam flores aperiuntur quasi bicornis, cornibus brevibus, pilo uno, altero inſtructis; flore aperto tetraphyllus, foliolis oblongis, concavis, duobus cum apicibus gibbosis deorum tendentibus, duobus erectis. fig. 1. 2. 3.

COROLLA: PETALA quatuor, majuscula, calyx duplo longiora, unguiculata, ereta, flava. fig. 4.

NECTARIUM: Glandula quatuor, duo extra baſin filamentorum preter morem longa, apice exterritorum incurvata, duo intra baſin filamentorum breviora, subrotunda. fig. 7. 8.

STAMINA: FILAMENTA sex, quorum duo breviora, subfubula, ereta, flaveſcentia; ANTHÆ in cumbentes, subſagittatae. fig. 5.

PISTILLUM: GERΜEN oblongum, tenuis; STYLUS brevifinus; STIGMA capitatum. fig. 6.

PERICARPIUM: Silique fœſquuncula, teres, utrinque linea prominenti notata. fig. 9.

SEMINA plurima, minuta, fusca, subovata, comprefſiūcula.

ROOT perennial, somewhat woody, penetrating deep into the walls, scarcely to be pulled out.

STALK a foot and a half high, upright, branched, round, at bottom somewhat woody and perennial.

LEAVES pinnatifid and jagged, smooth, spreading, of a disagreeable smell.

CALYX before the flowers are expanded has the appearance of having two horns, which are short, and furnished with one, or two hairs; on the expansion of the petals, it is composed of four, oblong, hollow leaves, two of which, being gibbous at top hang down, and the other two stand upright. fig. 1. 2. 3.

COROLLA four PETALS, rather large, twice the length of the calyx, clawed, upright, and of a yellow colour. fig. 4.

NECTARY: four Glands, two placed on the outside of the base of the filaments, unusually long, externally bent in at top, two placed on the inside of the base of the filaments, shorter and roundish. fig. 7. 8.

STAMINA: six FILAMENTS, two of which are shorter than the rest, tapering, upright and yellowish; ANTHÆ laying across the filaments, and somewhat arrow-shaped. fig. 5.

PISTILLUM: GERΜEN oblong, slender, Style very short; STIGMA forming a little head. fig. 6.

SEED-VESSEL: a Pod about an inch and a half long, round, mark'd on each side with a prominent line. fig. 9.

SEEDS numerous, small, brown, somewhat oval, and a little flatten'd.

MATTHIOLUS, one of the first Botanists who has taken notice of this plant, calls it *Eruca sylvestris*, and has given us a tolerable good figure of it, sufficient at least with his annexed description to identify it: CASPAR BAUHINE quotes this plant from Matthioli, with this addition, *Eruca sylvestris major lutea caule apero*, now there certainly is no appearance either in the plant, in Matthioli's description, or figure, which justifies those expressions, for as TOURNEFORT observes in his *Hist. des plantes des environs de Paris* the branches have sometimes a few small hairs on them but by no means can they be called rough, this description of Bauhine's has therefore created much confusion, nor is the name of J. BAUHINE which Tournefort has adopted perhaps totally free from objection, the term *tenuifolia* though proper when placed as the opposite to *latifolia*, in the present instance is liable to mislead.

Did we entertain the least idea of the insufficiency of Matthioli's, figure or description, TOURNEFORT and RAY have described it with so much accuracy as to leave no doubt of their being well acquainted with it, they both particularly its disagreeable smell, Tournefort's expressions are *son odeur approche de celle des huiles fétides rectifiées sur la chaux vive*; Rays *odor totius plantæ fætidus et ingratus, noſtris ſalem naribus*; if any thing more were wanting to their descriptions we might add some peculiarities in its fructifications, as that the Calyx before it opens appears to have two little short horns from each of which issue one or more fine hairs, when the flower is expanded two of the leaves of the Calyx stand almost upright, while the other two bend back, and that two of the glands are uncommonly long.

Mr. HUDSON in the first edition of his *Flora Anglicæ*, calls this plant *Braffica Erucaſtrum*, in the second edition he has made it a new species, it certainly does not accord with LINNÆUS's specific description of that plant, its fructifications denote it to be a *Braffica*, and it does not agree with any of the other species of *Braffica* in LINNÆUS, I have therefore adopted Mr. HUDSON's name.

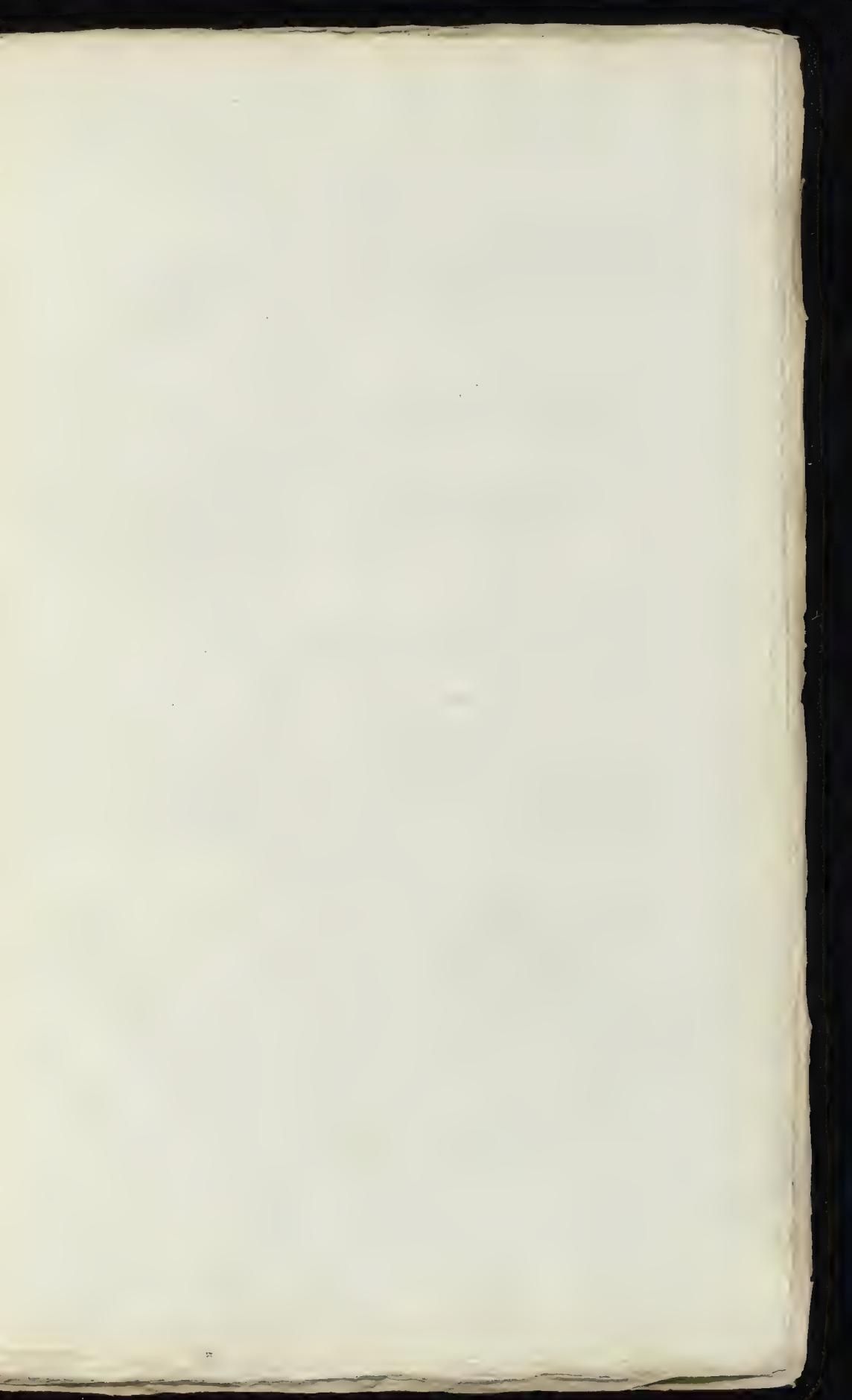
The Garden Rocket *Braffica Eruca* was formerly much cultivated in Gardens for medicinal use and for Salads; but is at present less common, the seeds have a pungent taste of the mustard kind but weaker, they have long been celebrated as aphrodisiacs, and may, probably, have in some cases a title to this virtue in common with other acrid plants, and this as RAY observes, was not only the opinion of the Physicians but also of the Poets of former times, which he illustrates by the following quotations:

MARTIAL. *Ex Venerem revocans Eruca morantem.*

COLUMELLA. *Excitat ad Venerem tardos Eruca maritos.*

OVID. *Nic minor Erucas jubeo vireare falaces.*

The *Braffica muralis* grows very plentifully in and about London, and is I believe of general growth on most of the old Walls and Castles throughout England, with us in particular it grows on the walls around the Tower, at the back of Bedlam, and near Hyde-Park, it is also frequently found among rubbish, it flowers during the greatest part of the summer.



CARDAMINE AMARA. BITTER LADIES-SMOCK.

CARDAMINE Lin. Gen. Pl. TETRADYNAZIA SILIQVOSA. *Siliqua clavice diffiliens, valvulis revolutis. Sigma integrum, Calyx fablians.*

Raii Syn. 21. HERBE TETRAPETALE SILIQUOSÆ ET SILICULOSÆ.

CARDAMINE amara foliis pinnatis axillis stoloniferis. Lin. Syst. Vegetab. p. 497. p. 915. Fl. Succic. n. 586.

CARDAMINE foliis pinnatis, subrotundis, angulofisis. Haller. Kif. 474.

CARDAMINE stolonifera Scopoli, ic. 39 ?

NASTURTIUM aquaticum majus et amarum. Baub. pin. 104.

CARDAMINE flore majore elatior. Tourn. Inst. R. H. Raii Syn. 291. Bitter Cresses.

Hudson Fl. Angl. ed. 2. p. 294. Lightfoot Fl. Scot. p. 350.

RADIX perennis, tenuis, albida, repens.

CAULIS pedalis ad bipedalem, erectus, basi stoloniferus, flexuosus, subangulatus, glaber, ramosus.

FOLIA radicalia magna, rotundata, subintegerrima; *caulina* suberecta, pinnata, pinnarum paria plerumque tria cum impari, pinnae oblongæ, angulatae, angulis denticulo terminatis, laves, margine ad lenteñ vix minutim ciliatae, extimâ majori et in plures angulos divisa.

FLORES albi, pro magnitudine plantæ, minores, florculis Cardamines pratensis perquam similes, nunquam vero colorati.

PEDUNCULI errectæ, teretes, laves alterni.

CALYX: PERIANTHUM tetraphyllum, foliolis convallis, errectis, flavescensibus, margine membranaceis, deciduis. fig. 1.

COROLLA: PETALA quatuor, suberecta, alba, basi virecentia, oblongo-ovata, subemarginata, plana, lineis profundis exarsita. fig. 2.

STAMINA: FILAMENTA sex, quorum duo breviora, subulata, alba; ANTHÈRE incumbentes, purpureæ; apicibus convolutis. fig. 5. 3.

GLANDULÆ ut in Cardamine pratensis. fig. 7.

GERMEN compressum, minute articulatum, longitidine filamenti; STYLUS brevis, obliquus; STIGMA minimum. fig. 4.

PERICARPIUM: *Siliqua* et *Semina* sicut in Cardamine pratensis, nisi majora. fig. 8. 9.

ROOT perennial, slender, whitish, and creeping. STALK from one to two feet high, upright, at bottom throwing out runners from the axil of the leaves, crooked, somewhat angular, smooth, shining, and branched.

LEAVES next the root large, round, and almost perfectly entire; on the stalk nearly upright, pinnated, consisting for the most part of three pair of pinnae with an odd one, pinnae oblong, angular, each angle terminated by a small tooth or point, smooth, the edge, if viewed with a magnifier, appearing finely ciliated, the terminal pinna larger than the others, and divided into more angles.

FLOWERS white, considering the largeness of the plant rather small, very like those of the common Ladies-smock, but never coloured.

PEDUNCULES without any bractæ, round, smooth, and alternate.

CALYX: as PERIANTHUM of four leaves, the leaves oblong, hollow, upright, yellowish, membranous at the edge, and deciduous. fig. 1.

COROLLA: four PETALS, somewhat upright, white, with a greenish base, of an oblong-oval shape, slightly notched, flat, with lines deeply engraved. fig. 2.

STAMINA: six FILAMENTA, two of which are shorter than the others, tapering and white; ANTHÈRE incumbent, purple, the top rolled up. fig. 5. 3.

GLANDS as in the common Ladies-smock. fig. 7.

GERMEN flat, finely jointed, the length of the stamina; STYLE short and oblique; STIGMA very minute. fig. 4.

SEED-VESSEL: Pod and Seeds similar to those of the common Ladies-smock, but larger. fig. 8. 9.

The *Cardamine amara* differs from the *pratensis* in divers respects, yet its affinity is so considerable as often to occasion its being mistaken for it; if the following characters, which distinguish it in particular from that plant, are attended to, the student will not easily be misled.

The *Cardamine pratensis* is a plant common in almost every wet meadow, this on the contrary is much more local, and rather affects to grow on the edges of rivulets and streams of water, than in the open meadow; the stalk-leaves of the *pratensis* are usually narrow, the sides cloising almost together, these on the contrary are large, broad, and very angular, more resembling indeed the water-cress, from which similarity this plant has obtained among the old Botanists the name of *Nasturtium*; it is in every respect a larger plant than the *pratensis*, its blossoms excepted, which are nearly of the same size; and, as in the *pratensis* they are always of a purple colour, more or less deep, so in this they are always perfectly white, the anthers, which in the *pratensis* are of a yellow colour, here form a striking contrast, and appear of a deep purple, and that, so far as I have observed, invariably, the tips of them are also more curled up; the style, which in the *pratensis* is upright, in the *amara* has an unusual obliquity in it, which I believe has not been noticed; towards the bottom of the stalk the *amara* is more disposed to throw out runners from the axil of the leaves than the *pratensis*, but this character depends, in a considerable degree, on the circumstances of situation, moisture, &c. the *pratensis* has a similar disposition in degree, and I have seen it throw out roots from the midrib of the bottom leaves.

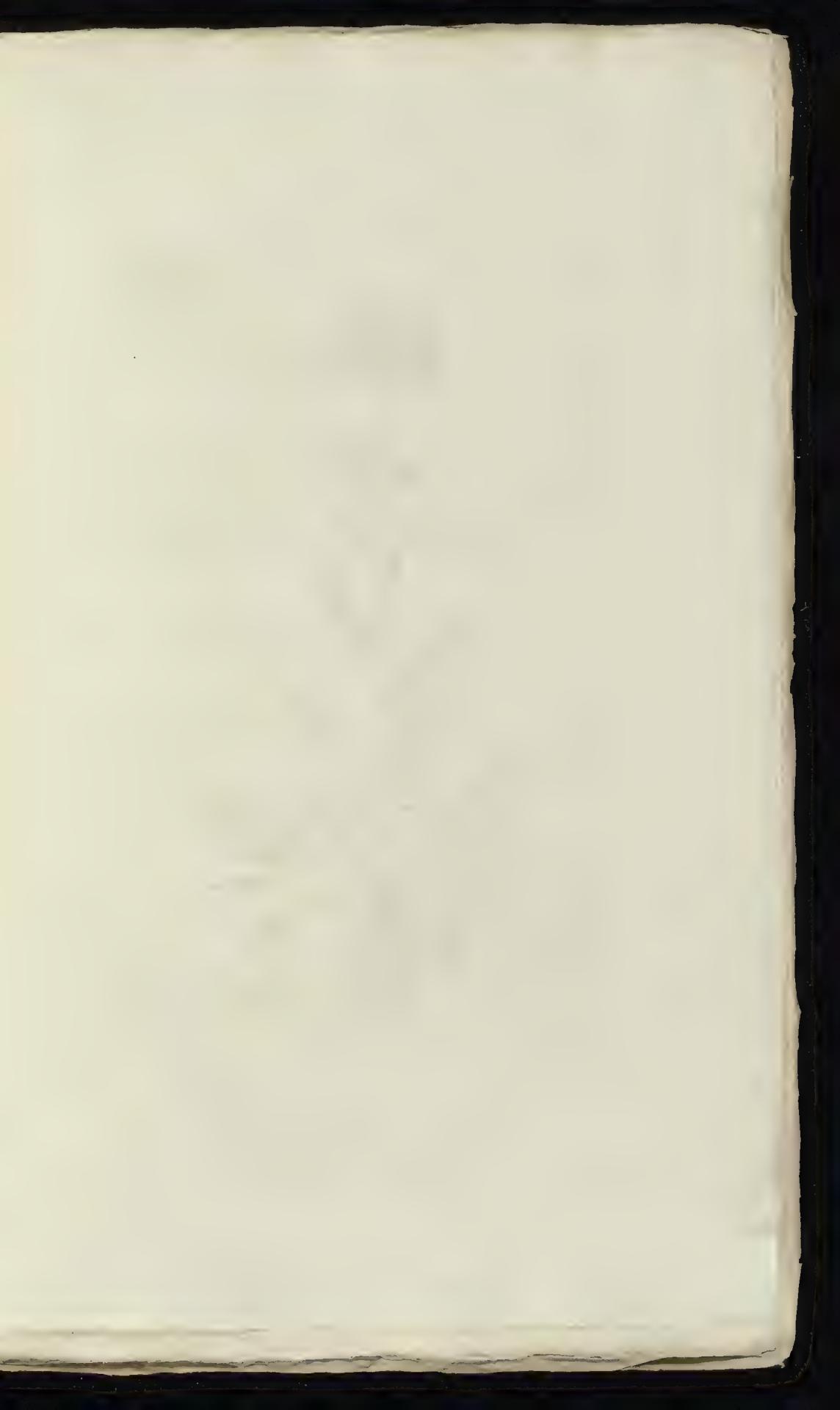
This plant may be considered as one of our planta rariores, I have noticed it here and there on the banks of the Thames, and the creeks running from it about Battersea and Chelsea, Mr. Alchorne has observed it about Lewisham, and in the neighbourhood of Uxbridge, it grows in abundance.

It flowers in May, and ripens its seed in June.

Its virtues and uses remain to be discovered, it has a strong biting taste of the cress kind, but not that degree of bitterness which would justify the epithet *amara*.



Cardamine amara.





Cardamine pratensis

CARDAMINE PRATENSIS. COMMON LADIES-SMOCK.

CARDAMINE *Lin. Gen. Pl. TETRADYNASTIA SILIQVOSA Silqua elatice diffiliens valvulis revolutis. Stigma integrum. Cal. subhians.*

Raii Syn. Gen. 21. HERBÆ TETRAPETAÆ SILIQVOSA ET SILICULOSÆ.

CARDAMINE *pratensis foliis pinnatis: foliolis radicalibus subrotundis, caulinis lanceolatis. Lin. Syst. Vegetab. p. 497. Sp. Pl. 915. Fl. Suec. n. 585.*

CARDAMINE foliis pinnatis, radicalibus subrotundis, caulinis linearibus. *Haller. Lijst. n. 473.*

CARDAMINE *pratensis, Scopoli Fl. Carn. n. 819.*

NASTURTIUM *pratense magno flore Baub. p. 104.*

FLOS CUCULI *Dod. pempt. 592.*

CARDAMINE *Ger. emac. 259.*

NASTURTIUM *pratense majus five Cardamine latifolia. Parkins 285. Raii Syn. p. 299. Ladies Smock or Cuckoo-flower.*

Hudson Fl. Angl. ed. 2. p. 294. Lightfoot Fl. Scot. p. 349.

RADIX *perennis, crassiuscula, alba, multis fibris tenuibus capillata.*

CAULIS *dodrantalis, erectus, apice parum ramosus, teres, obsoletus angulofus, latus, firmus, purpureus.*

FOLIA *radicalia sèpius manca, in orbem sparsa, pinna-ta, pinnis subrotundis, inaequaliter tridentatis, extimo majori, et sèpius quinque dentato, brevissime pedicellata, levia; caulina pinnata, erecta, pinnis plurimis, conformatis, sublineariibus, concavis.*

RACEMUS *terminalis, pedunculatus, nudus, glaber.*

CALYX: *PERIANTHIUM tetraphyllum, foliis ovato-oblongis, obtusis, margine membranaceis, concavis, alternis basi gibbosis, deciduis. fig. 1.*

COROLLA *cruciformis, dilute purpurea seu albida; Petala obovata, subemarginata, unguis flavecentibus, longitudine calycis. fig. 2.*

STAMINA: *FILAMENTA sex, subulata, quorum duo breviora, incurvata; ANTERÆ cordato lineares, incumbentes, flave. fig. 3.*

NECTARIUM: *Glandulae quatuor, quorum duo filamentorum breviorum basin cingunt, duo extra basin filamentorum longiorum locantur.*

PISTILLUM: *GERMEN cylindraceum, tenuis; STYLUS brevissimus; STIGMA capitatum, statim minus paulo brevior. fig. 4. 5.*

PERICARPIUM: *Silqua cylindraceo-compressa, bilocularis, bivalvis, valvulis dehiscente spiraliiter revolutis. fig. 6. 7.*

SEMINA *plurima, compressa, flavescens. fig. 8.*

The flowers of the *Cardamine pratensis* were a few years since introduced into practice, and recommended as efficacious in various spasmodic complaints by Sir W. BAKER, in the first volume of the *Medical Translations*, such as the convulsive Affliction, spasms of the abdominal and other muscles, St. Vitus's Dance, Epilepsy, &c. the dose recommended was from a scruple to half a drachm or more of the powder of the dried flowers, to be taken morning and evening.

From the difuse into which this medicine has fallen, it should seem that it had not answered the expectations of succeeding practitioners neither here nor abroad. *Vid. Murray's Apothecary. Vol. 2. p. 320.*

It gives a name to the *Papilio Cardamine* or *Orange-tip Butterfly*, which according to LINNÆUS feeds on it.

Sometimes it is found with double flowers, in which state it is kept in the gardens of the curious, where it requires a moist shady situation.

In the colour of its blossoms it is subject to much variation, they are usually white, with a tinge of purple, and ornament our meadows in the delightful month of May, as described by Shakespeare in *Loves Labour's lost*:

*When daisies py'd and violet blue,
And cuckoo-buds of yellow hue,
And LADY-SMOCKS all silver white
Do paint the meadows with delight, &c.*

It probably acquired its plain English name of *Lady-smock* from the white appearance which its blossom gives to the meadows where it abounds, resembling linen bleaching on the grass:

"When maidens bleach their summer smocks,"
a practice very general formerly, when most families spun and bleached their own linen.

ROOT *perennial, thickish, white, furnished with a large tuft of fine fibres.*

STALK *about nine inches high, upright, at top a little branched, round, scarce perceptibly angular, smooth, stiffish, with a purplish tinge.*

LEAVES *next the root frequently imperfect, spreading in a circular form, pinnated, the pinnae roundish, running out into three unequal angles or teeth, the outermost largest, and having for the most part five angles, standing on very short footstalks and smooth; those on the stalk pinnated, upright, the pinnae numerous, growing thickly together, somewhat linear and hollow.*

RACEMUS, or Flower-bunch, terminal, furnished with footstalks, naked and smooth.

CALYX: *a PERIANTHIUM of four leaves, which are oval, obtuse, membranous at the edge, hollow, the alternate ones gibbose at the base, and deciduous. fig. 1.*

COROLLA *cross-shaped, of a pale purple or whitish colour; Petala inversely oval, slightly notched, claws of a yellowish colour, the length of the calyx. fig. 2.*

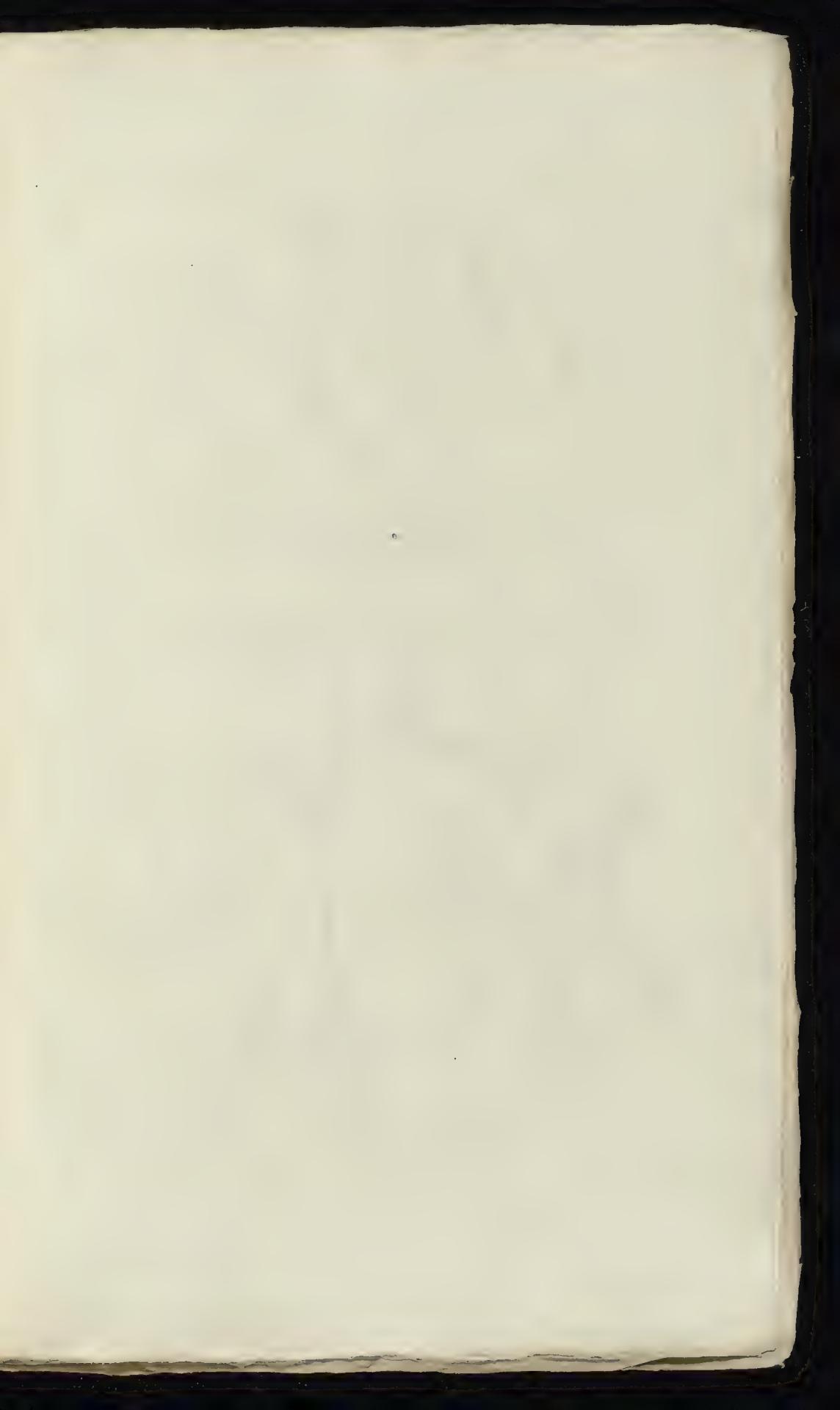
STAMINA: *six Filaments, tapering, the two shortest of which bend inward; ANTERÆ heart-shaped yet linear, incumbent and yellow. fig. 3.*

NECTARY: *four Glands, two of which surround the base of the shortest filaments, and two are placed on the outside of the base of the long filaments.*

PISTILLUM: *GERMEN cylindrical, and slender; STYLE very short; STIGMA forming a little head, and not quite so long as the stamens. fig. 4. 5.*

SEED-VESSEL: *a Pod cylindrical, and somewhat flattened, of two cavities and two valves, the valves in opening curling up. fig. 6. 7.*

SEEDS *numerous, flattened and yellowish. fig. 8.*





SISYMBRIUM SYLVESTRE. CREEPING WATER-ROCKET.

SISYMBRIUM *Linnæi*. Gen. Plant. TETRADYNAMIA SILIQUOSA.

Siliqua dehiscentia valvulis rectiusculis. *Cul.* patens. *Cor.* patens.

Raii. Syn. 21. HERBÆ TETRAPETALÆ SILIQUOSÆ ET SILICULOSÆ.

SISYMBRIUM sylvestre filiis declinatis oblongo-ovatis, foliolis lanceolatis ferratis. Lin. Syb.
vegetab. p. 497.

SISYMBRIUM foliis pinnatis, pinnis dentatis diffitatis Haller. Hjst. n. 485.

SISYMBRIUM Roripa? Scopoli Fl. Carniol. p. 823.

SISYMBRIUM palustre repens Nastrum folio. Tournefort plant autour de Paris p. 37.

ERUCA sylvestris minor luteo parvoque flore Bauhin pin. 98.

ERUCA quibusdam sylvestris repens, floculo luteo Bauh. Hjst. 2 p. 866.

ERUCA aquatica Ger. emac. 248. Park. 1242. Raii. Syn. 297. Water-Rocket. Raii. Hjst. p. 808.

Hudson. Fl. Engl. ed. 2. p. 296.

Lightfoot Fl. Scot. p. 351.

RADIX perennis, albida, tenuis, insigniter repens, plurimis germinibus tuberculosa.

CAULES plurimi, pedales, suberecti, debiles, interdum purpurascentes, glabri, angulato-striati, ramo, ramis hirsutulis.

FOLIA radicalia pinnatifida, pinnis subovatis, dento-ferratis, levia, petiolo purpurascente, cauina alterna, subpinnatifida, pinnis lanceolatis, ferratis, integrifolia.

PETIOLUS superne canaliculatus.

FLORES parvi, lutei.

PEDUNCULUS communis multiflorus, flexuosus, Pedunculi proprii alterni, patentes, aut fursum paululum curvati, siliquæ plerunque longiores.

CALYX: PERIANTHUM trephyllum, foliolis ovatis, concavis, erectis, aequalibus, flavescens, fig. 1.

COROLLA: PETALA quatuor, unguiculata, obtusa, patentia, calyx paulo longiora, fig. 2.

NECTARIUM: Glandulae quatuor, saturate virides, in circulum coadunatae.

STAMINA: FILAMENTA sex, quorum duo breviora, subulata, flava; ANTHÈRE incubentes, fig. 3.

PISTILLUM: GERMIN oblongum, teres, longitudine staminum, fig. 5, STYLUS brevissimus; STIGMA capitatum, villosum. fig. 4.

PERICARPIUM: Siliqua brevis, vix semuncialis, teres, fursum curvata, plerunque abortiva, fig. 6.

ROOT perennial, whitish, slender, remarkably creeping, thickly beset with germs which give it a knobbed appearance.

STALKS numerous, a foot high, nearly upright, weak, sometimes purplish, smooth, somewhat angular and finely grooved, branched, the branches very slightly hairy.

LEAVES next the root pinnatifid, the pinnæ or small leaves somewhat oval, toothed or sawed, and smooth, the leaf stalk purplish, leaves on the stalk alternate, serrated or entire.

FLOWER-STALK hollowed above.

FLOWERS small and yellow.

FLOWER-STALK: the general flower-stalk bent in and out and supporting many flowers, the partial ones alternate, spreading almost horizontally, or bent a little upwards, generally longer than the pod.

CALYX: a PERIANTHUM of four leaves, which are oval, hollow, upright, equal and yellowish. fig. 1.

COROLLA: four PETALS each having a claw, and blunt at the point, spreading and a little longer than the calyx, fig. 2.

NECTARY: four glands, of a deep green colour, united in a circle.

STAMINA: six filaments, two of which are shorter than the others, tapering, and yellow, ANTHÈRE laying across the Filaments. fig. 3.

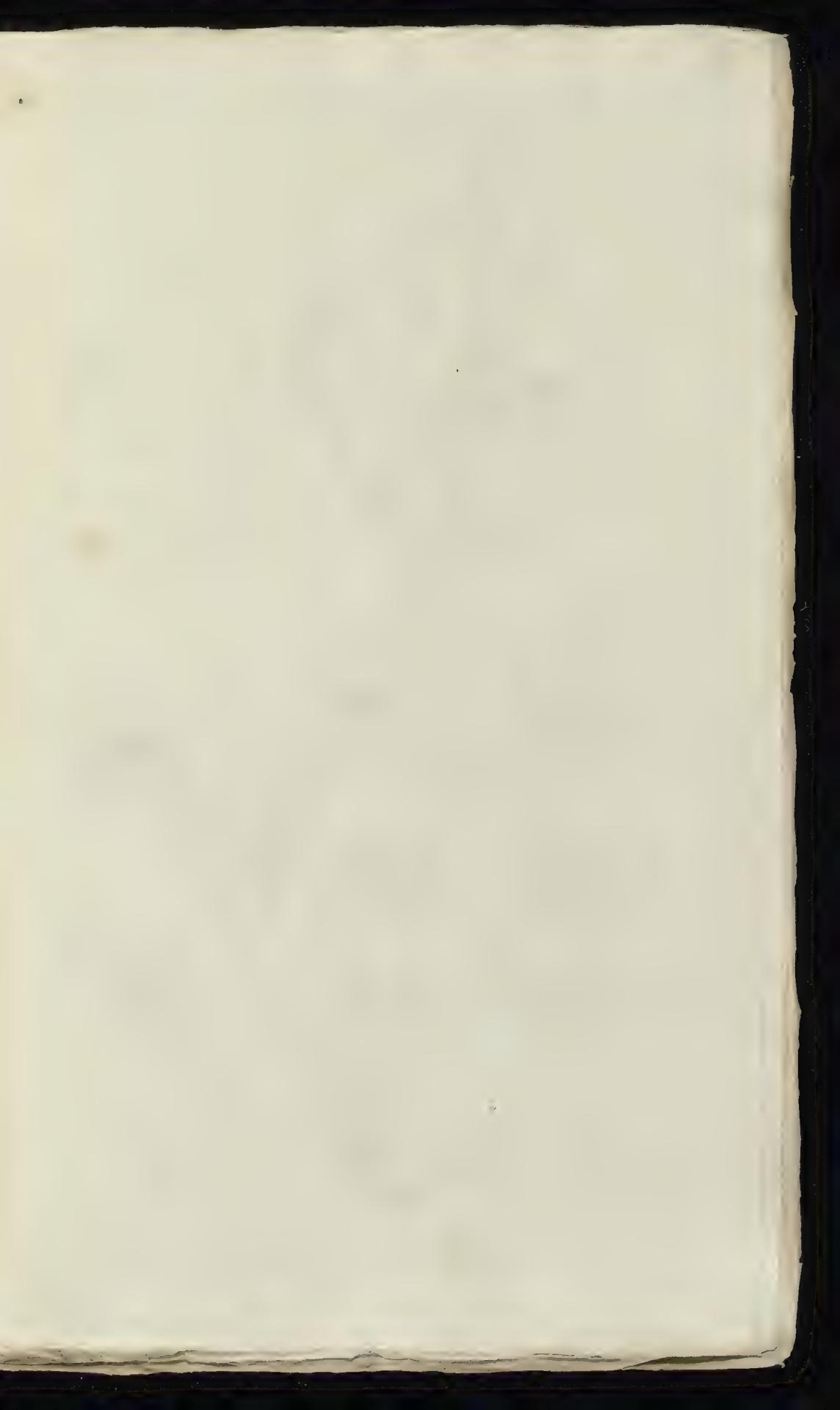
PISTILLUM: GERMIN oblong, round, the length of the stamna fig. 5, STYLE very short; STIGMA forming a little head and villous. fig. 4.

SEED-VESSEL a short Pod, scarce half an inch long, round, bending upwards, generally abortive. fig. 6.

TOURNEFORT in his *Histoire des Plantes des environs de Paris*, has described our plant with much accuracy, it appears from his account to be plentiful not only along the banks of the Seine, but in the courts before Houfes, and in most moist situations, it is also described by RAY, in his *Hjst. Plant*; with us it is not of such general growth but in those situations in which it does occur we find it in great abundance; the watery part of Tothill Fields Westminster is over run with it; I scarcely know any plant that requires to be introduced into a Garden with more caution than this, especially if the ground be moist.

It continues to flower from June to September. Both RAY and TOURNEFORT mention the seeds of this plant, it is probable they found it growing in a dry situation favourable to their ripening, the seed vessels which I have had an opportunity of seeing have all proved abortive, which I suspect is natural to the plant as it encroaches considerably by its root.

This plant affords no striking generic character, but may be referred to almost any Genus in the Order.





GERANIUM pyrenaicum. perennial DOVES-FOOT CRANESBILL.

GERANIUM Lin. Gen. Pl. MONADELPHIA DECANDRIA.

Monogyna. Stigmat. 5. Fructus rostratus, 5-coccus.

Raii Syn. Gen. 24. HERBÆ PENTAPETALÆ VASCULIFERÆ.

GERANIUM *pyrenaicum* pedunculus bifloris, foliis inferioribus quinquepartito-multifidis, rotundatis; superioribus trilobis, caule erecto. Linn. Syst. Vegetab. p. 514.

GERANIUM pedunculus bifloris, foliis multifidis, lacinia obtusa, inaequalibus, petalis bifidis. Gerard.

Fl. Gallo-prov. p. 434. fig. 16. 2. Hudson Fl. Angl. ed 2. p. 302. Lightfoot Fl. Scot. p. 367.

RADIX perennis.

CAULES suberecti, pubescentes, pedatae, et ultra, ramosi, geniculati, geniculis pauculum incrassatis.

FOLIA radicalia rotundata, hirsutula, venosa, margine saepe rubicunda, septemlobata, lobis subtrifidis, lacinia obtrunculatis, mucronatis, intermedia majora; caudina opposta, lobis paucioribus, itaque postice magis remotis.

PETIOLAE radicales, prælongi, teretes, pubescentes, si dicindantur extremitatibus suis puncta quantu[m] alba exhibentes.

STIPULÆ ad singula genicula quaternæ, utrinque binæ, genicula ambientes, bifidæ, vel trifidae, rubentes, perserrantes.

PEDUNCULI pubescentes, bifidi, biflori, Pedicelli longitudine pedunculi, basi stipulis quaternis minoribus notati.

FLORES majusculi, purpurei, antequam aperiuntur nutantes, postea erexitæ.

CALYX: PERIANTHIUM quinquepartitum, lacinia ovato-lanceolata, brevi mucrone fusco obtusifculo terminatis, trinervibus, ciliatis, subvicosis. fig. 1.

COROLLA: PETALA quinque, calyx duplo longiora, obcordata, apice bifida, basi villosa. fig. 2.

NECTARIUM: Glandulae quinque flavescentes ad basin Staminum. fig. 5.

STAMINA: FILAMENTA decem, alba, apice purpurascens; ANTHÈRE corulecentes; POLLEN album, globosum. Antheræ exstus postea pollen præ cætēs dimittunt, et deinde decidunt, nunquam vero abortiunt. fig. 3.

PISTILLUM: GERmen pentagonum, viride; STYLUS fuscatus; STIGMATA quinque, longitudine Antherarum. fig. 4.

FRUCTUS pentacoccus, Arillus carinatus, hirsutulus. fig. 6.

SEMIN ovatum, fuscum, laxe.

ROOT perennial.

STALKS nearly upright, and downy, a foot high, or more, branched, and jointed, the joints a little swelled.

LEAVES of the root of a roundish figure, somewhat hirsute, and veiny, the edge often reddish, divided into seven lobes, each of which is subdivided into about three bluntish segments, terminated by a short point, the middle segment the largest; those of the stalk opposite, composed of fewer lobes, and those more widely separating behind.

LEAF-STALKS next the root very long; round, and downy, exhibiting if cut acros four white dots on their extremities.

STIPULÆ: four at each joint, two on each side, surrounding the joint, divided into two or three segments, of a reddish colour and permanent.

FLOWER-STALKS downy, bifid, supporting two flowers. Partial flower-stalks the length of the general one, and furnished at bottom with four smaller stipulae.

FLOWERS largish and purple, before they open hanging down, afterwards becoming upright.

CALYX: a PERIANTHIUM divided into five oval pointed segments, terminated by a short brown bluntish point, having three ribs, edged with hairs, and slightly clammy. fig. 1.

COROLLA: five PETALS twice the length of the calyx, inversely heart-shaped, bifid at top, at bottom villous. fig. 2.

NECTARY: five yellowish Glands placed at the bottom of the Stamina. fig. 5.

STAMINA: ten FILAMENTA, purplish at top, ANTHÈRE blueish; POLLEN white and globular. The outer row of anthers shed their pollen first and then drop off, but are never sterile. fig. 3.

PISTILLUM: GERmen five corner'd, of a green colour; STYLE grooved; STIGMATA five, the length of the Antheræ. fig. 4.

FRUIT composed of five prominent feeds, seed-covering mark'd with a prominent line, and slightly hirsute. fig. 6.

SEED oval, brown, and smooth.

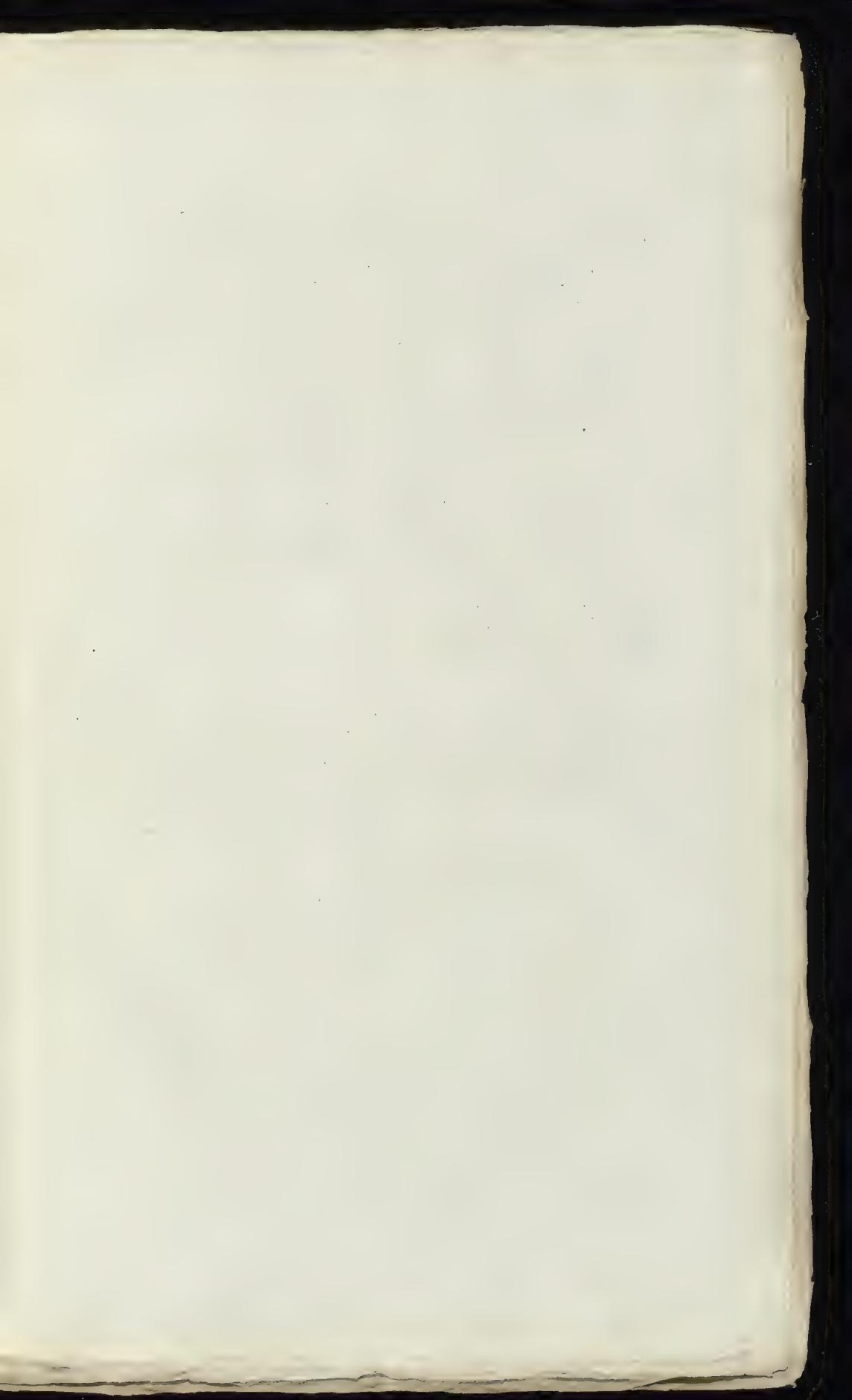
The great similarity existing between the present Geranium, the *molle*, and *rotundifolium*, has occasioned no small confusion among the Lymonyms of Authors, which as Haller observes, are covered with impenetrable obscurity.

Nevertheless an attentive observation of the plants themselves, as they grow wild, will shew that they may be distinguished without any great difficulty. In treating of the *molle* which is the most liable to be mistaken for this species, I observed that it was subject to many varieties, particularly in the colour of its blossoms, that its stalks, always procumbent when the plant grew alone, were liable to grow upright among grafts and herbage, and that in some rich pastures the flowers approached almost to the size of those of the present plant.—Having cultivated most of our English Geraniums I can with certainty declare that the *molle* is strictly an annual, and the *pyrenaicum* perennial, this then constitutes an essential difference between the two, besides, the *pyrenaicum* usually grows to twice the size, its blossoms also are more than thrice as large, it is never procumbent but always nearly upright, and it is likewise, with us at least, a much scarcer plant.

Mons: GERARD in his *Flora Gallo-provincialis* has the merit of first giving an accurate description and figure of this plant, he supposes it to be the *Geranium columbinum perenne pyrenaicum maximum* of TOURNEOFORT whence LINNÆUS has given it the name of *pyrenaicum*; Mr. HUDSON in the first edition of his *Flora Anglica* called it *perenne*, but in the last he has adopted the name of LINNÆUS, I have hitherto found this plant growing wild in one spot only, viz. in the dry part of the pasture in Battersea Fields, on the left hand side of the road as you pass from London by the Thames side, betwixt the Red House and Chelsea Bridge.

In Chelsea Garden it comes up as a weed and is there found also with white flowers.

It blows in June and July.



MALVA ROTUNDIFOLIA. DWARF MALLOW.

MALVA Linnei Gen. Pl. MONADELPHIA POLYANDRIA.

Cal. duplex: exterior triphyllus. Arilli plurimi, monospermii.

Raii Syn. Gen. 15. HERBÆ SEMINE NUDO POLYSPERMÆ.

MALVA rotundifolia caule prostrato, foliis cordato-orbiculatis obsolete quinquelobis, pedunculis fructiferis declinatis. Linnae Syst. Vegetab. p. 520.

MALVA caule repente, foliis cordato orbicularibus, obsolete quinquelobis. Haller hift. n. 1070.

MALVA rotundifolia. Scopoli Fl. Carn. n. 858.

MALVA sylvestris folio rotundo. B. pin. 314.

MALVA sylvestris pumila. Ger. em. 930.

MALVA sylvestris minor. Park. 299. Raii syn. 251. Small wild Mallow or Dwarf Mallow.

Hudson. Fl. Angl. ed. 2. p. 307.

Lichtfoot. Flor. Scot. p. 375.

RADIX annua, in terram alte descendens, albida.

CAULES plures ex una radice, prostrati, dodrantales, etiam pedales et ultra, teretes, pubescentes, extus purpurascentes.

FOLIA alterna, petiolata, utrinque minutim pubescens, scabriuscula, subrotundo reniformia, quinque vel septemloba; lobis rotundatis, margine ferrata, subtus subseptemnervia, extrema sensim majora.

PETIOLAE teretes, elongati, pubescenti-scabri, supra fulcati.

STIPULÆ duæ, oppositæ, parvifolæ, lanceolatae, acute, ciliatae, pubescentes.

FLORES plerumque gemini, pedunculati, axillares, pedunculis petiolis breviribus, filiformibus, teretibus, pubescensibus, sèpius inæqualibus.

CALYX: PERIANTHIUM duplex, exterius triphyllum; foliis linearibz subulatis, obtusis; interius campanulatum, pubescens scabrum, quinquefidum; lacinia ovato acutis, ereditis, carinatis, margine ferratis, subundulatis. fig. 1.

COROLLA alba, venis rubellis picta, PETALA quinque, linearis cuneiformia, obtusa, emarginata, calyx paulo longiora, erecta subfusilla. fig. 2.

STAMINA: FILAMENTA plurima, monadelpha, columnæ cylindrica, glabra, corolla breviora, superne breviter libera.

ANTHERÆ parva, subrotundæ, echinatae, undique nutantes. fig. 3.

PISTILLUM: GERMIN orbiculatum, depresso, infra receptaculum corollæ; STYLI plures, subulati, erediti, vix pubescens, longitudine staminum; STIGMATA simplicia. fig. 4.

SEMINA ut in sylvestris, at minora. fig. 5.

We meet with this species of Mallow on dry Banks, also under Pales and Walls in great plenty, it is obviously distinguished from the common mallow by having a procumbent stalk, and small white flowers slightly tinged with red.

It continues to blow from June to September.

HALLER and SCOPOLI describes the stalk as creeping, our plant certainly does not creep.

ROOT annual, striking deep into the earth, of a whitish colour.

STALKS several from one root, laying prostrate on the ground, from nine to twelve inches in length or more, round, downy, and most commonly purplish.

LEAVES alternate, standing on footstalks, covered on both sides with a fine down, slightly rough, of a roundish, kidney-shaped form, usually divided into five or seven roundish lobes, serrated at the edge, having generally on the under side seven ribs, those farthest from the root gradually largest.

LEAF-STALKS round, long, downy, with a slight roughness, grooved on the upper side.

STIPULÆ two, opposite, smallish, lanceolate, pointed, edged with hairs and downy.

FLOWERS generally growing in pairs, connected to flower stalks, which spring from the axæ of the leaves, and which are shorter than the leaf-stalks, thread shaped, round, downy, and for the most part unequal.

CALYX: a double PERIANTHIUM, the outer one composed of three linear tapering leaves, bluntish at the point; the inner one bell-shaped, downy, with a slight roughness, divided into five segments, of an oval pointed shape, upright, keel'd, the edge serrated and slightly waved. fig. 1.

COROLLA white, striped with reddish veins, PETALS five, of a narrow wedge shape, blunt, notched at the extremity, a little longer than the calyx, upright, nearly sessile. fig. 2.

STAMINA: FILAMENTA numerous, united into one body, the column cylindrical, smooth, shorter than the corolla, at top short and loose. ANTHERÆ small, roundish, prickly, hanging down all around. fig. 3.

PISTILLUM: GERMEN orbicular, flatten'd, placed below the receptacle of the corolla; STYLES numerous, tapering, upright, scarcely downy, the length of the stamna; STIGMATA simple. 4.

SEEDS as in the sylvestris, but smaller. fig. 5.



" The common yellow vetchling, *Lathyrus flavus*, or everlasting pea, might likewise be on many occasions cultivated with profit by the farmer. It grows with great luxuriance in the clover field, and continues to yield annually for any length of time, a great weight of forage, which is deemed to be of the very best quality: and as it is equally fit for pasture or for hay, the farmer would have it in his power to apply it to the one or the other of these uses, at any period that might best suit his convenience.—It is likewise attended with this farther advantage, that as it continues to grow with equal vigour in the end of summer as in the beginning thereof, it would admit of being pastured upon in the spring, till the middle or even the end of May, should it be necessary; without endangering the loss of the crop of hay: which cannot possibly be done with rye-grass, or any other plant usually cultivated by the farmer, except clover, which is equally unfit for early pasture or for hay. This plant would be the more valuable to the farmer that it grows to the greatest perfection on such soils as are altogether unfit for producing fain-foin; the only plant hitherto cultivated that seems to possess qualities approaching to those of this one.—It must, however, be acknowledged, that the difficulty of procuring seeds of this plant in abundance, must be a very great bar to the general cultivation thereof: for although these ripen very well in our climate, yet the quantity that it produces is so inconsiderable, and the difficulty of getting them separated from the pod is so great, as to make it necessary to gather them by the hand; in which way the quantity obtained must be very trifling. To counterbalance this defect, however, it may be observed, that it is not only an abiding plant, which never leaves the ground where it has been once established; but that it also increases so fast by its running roots, that a very few plants at first put into a field, would soon spread over the whole and stock it sufficiently. If a small patch of good ground is sown with the seeds of this plant, in rows about a foot distant from one another, and the intervals be kept clear of weeds for that season, the roots will spread so much as to fill up the whole patch next year; when the stalks may be cut for green fodder or for hay. And if that patch were dug over in the spring following, and the roots taken out with the hand, it would furnish a great quantity of plants, which might be planted in such fields as you meant to have filled with this, at the distance of two or three feet apart; which would probably there take root, and quickly overspread the whole field. And as there might always be a sufficient quantity of the roots left to fill again the patch from whence they were taken, it would be ready to furnish a fresh supply the next season, and might thus continue to serve as a nursery for ever afterwards. It appears to me, that this would be the most likely method of propagating this plant with ease; but I have not as yet had sufficient experience thereof to be able either to tell precisely the expence of it, or to answer positively for the success thereof in all cases."

LATHYRUS PRATENSIS. MEADOW VETCHLING.

LATHYRUS Linn. Gen. Pl. DIADELPHIA DECANDRIA.

Stylus planus, supra villosus, superne latior.
Cal. laciniae superiores 2 breviores.

Raii Syn. Gen. 23 HERBÆ FLORE PAPILIONACEÆ SEU LEGUMINOSÆ.

LATHYRUS pratensis pedunculis multifloris, cirrhis diphyllis simplicifloris: foliis lanceolatis. Lin. Syst. Vegetab. p. 552. Sp. pl. p. 1033.

LATHYRUS scapis multifloris, foliis lanceolatis, capreolis simplicibus. Haller. hifl. 436.

LATHYRUS pratensis. Scopoli Fl. Carniol. p. 64.

LATHYRUS sylvestris luteus, foliis viciæ. Baubin. p. 344.

LATHYRUS luteus sylvestris dumetorum. Baub. hifl. 2. p. 304. t. 304.

LATHYRUS sylvestris flore luteo. Ger. encyc. 1231. Park. 1062. Raii Syn. p. 320. Tare-everlasting, common yellow balfard Vetchling.

Hudson, Fl. Angl. p. 317. ed. 2. Lightfoot Fl. Scot. p. 391. Oeder. Fl. Dan. ic. 527.

RADIX perennis, albida, repens.
CAULIS pedalis, etiam tripedalis et ultra, debilis,
cirrhis fuscotentatus, angulatus, subpilosus,
ramosus.
FOLIA lanceolata, trinervia, subtus villo-
sa.
PETIOLÆ trigoni, subpilosæ, longitudine stipularum.
STIPULÆ semisagittatae, latitudine foliorum, hamis
duobus subinde intricati.
PEDUNCULI tetragoni, longi, subrotundiflori.
FLORES lutei, erecti, racemosi, secundi.
PEDICELLI teretes, villosi, longitudine calycis.
CALYX: PERIANTHII monophyllum, tubulatum,
breve, cylindraceum, subpilosum, quinque-
dentatum, dentibus acuminateis, inferioribus
longioribus, sursum paulisper curvatis, fig. 1.
COROLLA papilionacea, vexillum submarginatum,
reflexum, prope basin superne foveis duabus
intus prominentibus notatum fig. 2; Alæ
duae; apice rotundatae fig. 3; Carina longitudi-
nem alarum. fig. 4.
STAMINA: FILAMENTA diadelpha, (simplex et no-
vemfidum, fig. 5. 6. affiguntia; ANTHÈRE
subrotunda, flavæ.
PISTILLUM: GERMIN viride, compressum, oblon-
gum; STYLUS erexit, superne latior apice
acuto; STIGMA a medietate stylis ad apicem
antice villosum. fig. 7. a sculptore male ex-
prefum.
PERICARPIUM: Legumen lesquiuiale, compressum,
nigricans, continuens Semina octo ad duodecim,
subrotunda.

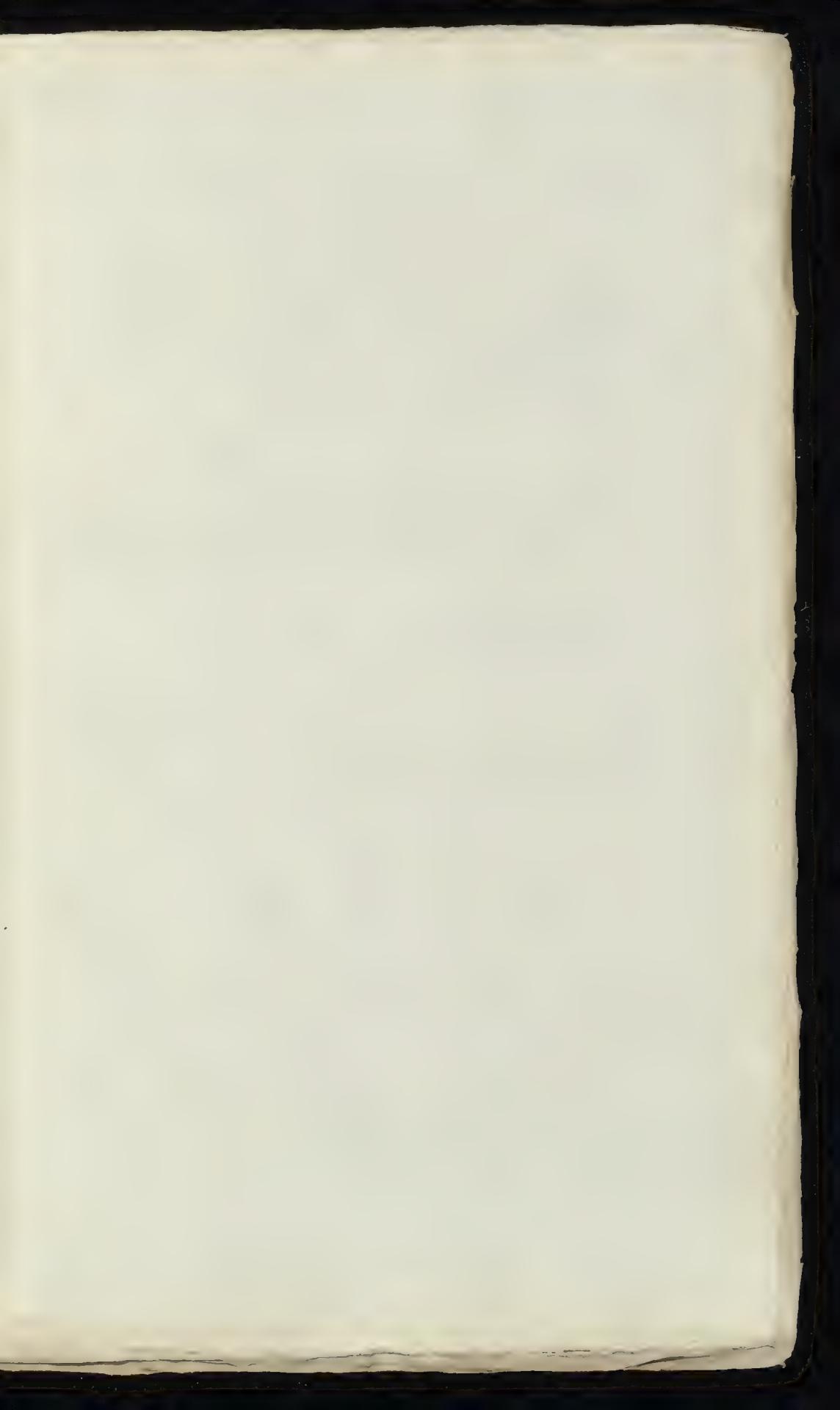
ROOT perennial, whitish and creeping.
STALKS a foot high, sometimes even three feet or
more, weak, supported by its tendrils, angular,
slightly hairy, and branched.
LEAVES growing in pairs, lanceolate, having three
ribs, and slightly downy underneath.
LEAF-STALKS three-cornered, somewhat hairy, the
length of the stipulae.
STIPULÆ in the shape of an half arrow, the breadth
of the leaves, sometimes having two projec-
tions behind.
FLOWER-STALKS four cornered, long, supporting
about eight flowers.
FLOWERS yellow, upright, growing in a bunch, all
one way.
PARTIAL FLOWER-STALKS round, villous, the
length of the calyx.
CALYX: a PERIANTHII of one leaf, tubular, short,
cylindrical, somewhat hairy, furnished with
five teeth, which are long and pointed, the
lowermost longest, and bent a little upwards.
COROLLA papilionaceous, Standard slightly notched,
turned back, on the upper side near the base
marked with two little cavities which project
inwards, fig. 2; Wings rounded at top fig. 3;
Keel the length of the wings fig. 4.
STAMINA: ten FILAMENTA, rising upwards, nine
united together, and one forming a separate
body; fig. 5. 6. ANTHÈRE roundish and yellow.
PISTILLUM: GERMIN green, flattened, oblong;
STYLE upright, broadest above with a pointed
top; STIGMA from the middle of the style
to the top villosa on the fore part, fig. 7.
SEED-VESSEL a Pod an inch and an half long, flat-
ten'd, of a blackish colour, containing from
eight to twelve roundish Seeds.

THE following observations on this plant by the ingenious author of Essays relating to Agriculture and rural Affairs, will not be unacceptable to such of our readers as are fond of Husbandry and rural improvements; before I had seen his remarks, I had often thought it a plant which at least deserved a trial, and might, in particular soils, be cultivated to advantage. I remember once in particular to have seen a piece of stiff soil belonging to Lord Loughborough, at his seat near Mitcham, which produced an excellent crop of pasture, consisting chiefly of this plant, and the Festuca pratensis.

It grows very frequently in pastures and hedges, and flowers in June and July.

"The





TRIFOLIUM AGRARIUM. HOP TREFOIL.

TRIFOLIUM Lin. Gen. Pl. DIADELPHIA DECANDRIA.

Flores subcapitati. Legumen vix calyce longius, non deliquescentes, deciduum.

Raii Syn. G.n. 23. HERBÆ FLORE PAPILIONACEO SEU LEGUMINOSÆ.

TRIFOLIUM agrarium spicis ovalibus imbricatis: vexillis deflexis persistentibus, calycibus nudis, caule erecto. Lin. Syst. Veg. p. 574. Sp. Pl. 1087. Fl. Suecic. 671.

TRIFOLIUM spicis ovatis densissimis, strepentibus, caulis diffusis. Haller. Syst. n. 363.

TRIFOLIUM agrarium. Scopoli Fl. Carn. n. 931.

TRIFOLIUM pratense luteum capitulo Lupuli vel agrarium. Baub. pin.

TRIFOLIUM luteum minimum. Ger. enac. 1186. Raii Syn. p. 330. Hop-Trefoil.

Oeder. Fl. D. t. 553.

Hudson. Fl. Angl. ed. 2. p. 328.

Lightfoot. Fl. Scot. p. 409.

RADIX annua.

CAULIS palmaris aut dodrantalis, plerumque diffusus, teres, villosus, ramosus, fruticosus, saepe rubens.

STIPULÆ binæ, ovato-acuminatae, striatae.

FOLIA oblongo-cordata, plerumque nuda, nervosa, nervis plurimis, rectis, acute ferrata.

PETIOLÆ teretes, foliis ipsis paulo breviores.

PEDUNCULÆ erecti, nudi, petiolis multo longiores.

FLORES quadraginta circiter, imbricatim densissime glomerati, vix manifeste pedicellati, capituli injuncti, subrotundi, primum lutei, demum fulvi.

CALYX: PERIANTHIUM minimum, membranaceum, flavescens, a corolla ægri diftingendum, aut separandum, quinqüedentatum, dentibus duobus superioribus brevissimis, tribus inferioribus fœtaceis, pilosis, corolla brevioribus. fig. 1.

COROLLA calyce duplo longior, persistens, Vexillum suberectum, nervosum, margine ferratum, peracta florcentia magnitudine augetur, et deorsum flexitur; Alæ conniventes, vexillo breviores: Carina minima, intra alas, iisque brevior. fig. 2.

PERICARPIUM: LEGUMEN corolla tectorum, membranaceum, monospermum, parietibus tenuissimis, cito corrumpentibus, relicta tantum futura cum mucrone. fig. 4.

SEMENT unicum, nitidum, fuscum sive auranticum. fig. 5.

The name of Hop Trefoil has been with much propriety bestowed on this plant, as the little heads formed by the flowers are larger and more resembling the hop than those of any of the other species.

We are carefully to distinguish it from the *Trifolium procumbens*, than which it is in every respect larger, and less procumbent.

It is by no means an uncommon plant in dry pastures, on the borders of fields, and in gravelly soils; in some fields I have observed it naturally to form a considerable part of the Farmers crop, which though a small one was judged to make excellent fodder.

It is perhaps one of those plants which merits the further attention of the Husbandman.

June and July are the months in which it usually flowers.

Scopoli doubts, and apparently with great propriety, whether the *Trifolium spadiceum* of LINNÆUS be a species distinct from this.

ROOT annual.

STALK from six to nine inches in length, generally spreading, round, villous, branched, a little hard or shrubby, often of a reddish colour.

STIPULÆ growing in pairs, oval, pointed, and striated

LEAVES of an oblong heart-shape, generally smooth, finely rib'd, the ribs striat, sharply sawed about the margin.

LEAF-STALKS round, and somewhat shorter than the leaves themselves.

FLOWER-STALKS upright, naked, much longer than the leaf-stalks.

FLOWERS about forty, standing on very short foot-stalks, which are scarcely perceptible, laying very close one over the other, and forming largeish heads of a roundish shape, which at first are yellow, and afterwards brown.

CALYX: a PERIANTHIUM very minute, membranous, yellowish, with difficulty distinguished or separated from the corolla, having five teeth, of which the two uppermost are very short, the three lowermost fœtaceous, hairy, and shorter than the corolla. fig. 1.

COROLLA twice the length of the calyx, permanent; Standard nearly upright, rib'd, the edge ferrated, the flowering being over, it becomes increased in size and turns back; Wings clofing, shorter than the standard; Keel very small, within the wings and shorter than them. fig. 2.

SEED-VESSEL: a Pod covered with the corolla, membranous, containing one seed, the sides being very thin, soon decay, and leave nothing but the future with its point. fig. 4.

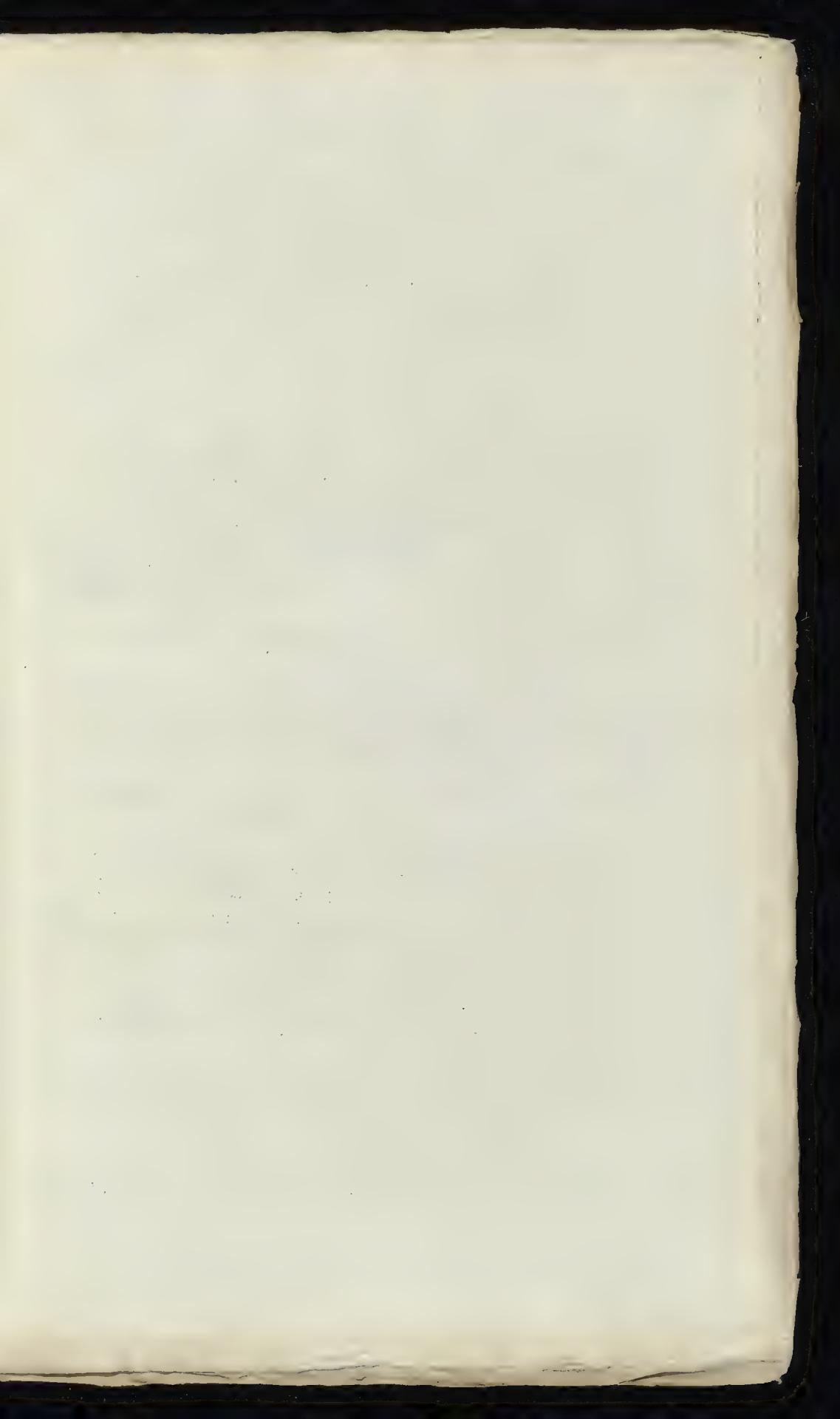
SEED single, shining, of a brown or orange colour.

fig. 5.



Trifolium pratense.

Flowers.



TRIFOLIUM REPENS. DUTCH CLOVER.

TRIFOLIUM Linnei Gen. Pl. PHILADELPHIA DECANDRIA

Flores subcapitati. Legumen vix calyce longius, non dehiscentis, deciduum.

Raii Synop. Gen. 24. HERBÆ FLORE PAPILIONACRO SEU LEGUMINOSÆ.

TRIFOLIUM repens capitulis umbellariis, leguminibus tetraspermis, caule repente. Lin. Syst. Vegetab.

p. 572. Sp. Pl. p. 1080. Flor. Suec. n. 665.

TRIFOLIUM caule repente; spicis depressis; siliquis tetraspermis. Haller Hist. n. 367.

TRIFOLIUM repens Scopoli. Fl. Carniol.

TRIFOLIUM pratense album C. B. pin. 327.

TRIFOLIUM minus pratense, flore albo Ger. emac. 1185. Parkinson. 1110. Raii. Syn. p. 327. White-flower'd Trefoil.

Hudson. Fl. Angl. ed. 2. p. 324.

Lightsfoot Fl. Scot. p. 404.

RADIX perennis, fibrosa.

CAULES plurimi, repentes, late sparsi, teretes, fimbriates, glabri, virides, seu purpurascens.

STIPULÆ ovato-lanceolatae, venosæ, venis purpuratcentibus.

FOLIA tereta, variabilia, nunc ovata, obtusa, nunc obcordata, emarginata, acute ferrata, viridia, seu purpurascens, macula lundulata albicans plerumque notata.

PEDUNCULI longissimi, eretti, striati.

FLORES plerumque albi, purpurascens etiam occurunt, glomerati, junioribus erectis, matutinis deflexis, fuscis.

CAPITULA majuscula, praesertim in culta planta, sphaerica.

CALYX: PERIANTHUM monophyllum, quinquedentatum, sibi coloratum, fructu decem elevatis notatum, dentibus fetaceis, duobus superioribus paulo longioribus. fig. 1.

COROLLA papilionacea, calyce duplo longior; VELLUM oblongum, submarginatum, reflexum, fig. 2. ALÆ duæ, vexillo multo breviores; fig. 3. CARINA brevissima, basi bifida, fig. 4.

STAMINA: FILAMENTA diadelpha, simplex et novemfidum; fig. 5. 6. ANTERÆ parvæ, luteæ.

PISTILLUM: GERMEN oblongum, tertiusculum; STYLUS subulatus, longitudine germinis;

STIGMA flavescens, capitatum. fig. 7.

PERICARPIUM: LEGUMEN oblongum, teres, mucronatum, torulofum. fig. 8. continens

SEMINA duo ad quatuor. fig. 9.

THE creeping or Dutch Clover may be considered as one of our most valuable British plants, the greatest part of the seed used in this country is imported from Holland, where it is cultivated on account of its seed, and hence it has acquired the name of Dutch Clover, as it is a plant which grows naturally wild in this country, on dry, gravelly, and indifferent soils, it is probable it might also be cultivated for the same purpose in many parts of Great Britain, where land and labour are cheap, and that to great advantage.

The quantity of Seed sold annually in this country is astonishingly great, Messrs. Gordon and Dermer who do not particularly deal in this article sell every year forty or fifty tons weight of it.

Those plants which have creeping roots or stalks have the advantage of most others in point of growth, and when a plant of this kind growing naturally in a barren soil, comes to have the advantage of cultivation, it flourishes amazingly, so does the Dutch Clover, a single seedling of which I have known in a garden to cover more ground than a yard square, in one summer.

Although this plant does not grow so tall as some others, yet the vast number of stalks, leaves, and blossoms which it throws out produces a great bottom in a pasture, and thereby stamp a particular value on it.

It is not a plant however which makes any great figure in the spring, but its chief excellence consists in producing herbage in dry summers, late in the season, when most of the grasses are burnt up, it then covers the fields with a beautiful verdure, and affords plenty of food to the Cattle, or hay for a second crop.

There is an idea very prevalent among farmers, that after alone spread on land will produce this plant in abundance, they do not know, or will not believe, that the plant previously existed in the ground, and is only render'd larger and more conspicuous by the manure.

Of the *Trifolium repens* I have observed two remarkable varieties, viz. one with leaves of a deep purple colour, cultivated in gardens as an ornamental plant, the other prolixous, having small heads of leaves growing out of the flowers, this I found several years ago on the left-hand side of the canal, leading from Limehouse to Bromley, there are likewise several other varieties, which depend on the richness and poverty of soil.

ROOT perennial and fibrous.

STALKS numerous, creeping, spreading wide, round, unbranched, smooth, green, or purplish.

STIPULÆ ovate and pointed, veiny, the veins purplish.

LEAVES growing three together, variable as to their shape, being sometimes ovate and blunt, sometimes inversely heart-shaped and notched at the end, sharply sawed round the edge, of a green or purplish colour and having most commonly a whitish mark in the center.

FLOWER-STALKS very long, upright and striated, FLOWERS generally white, but sometimes purplish, growing in a cluster, the young ones upright, the old ones hanging down and becoming brown.

HEADS large, especially in the cultivated plant, and of a round shape.

CALYX: a PERIANTHUM of one leaf, having ten teeth, generally coloured, marked with ten ribs, the teeth bristle-shaped, the two uppermost somewhat the longest. fig. 1.

COROLLA papilionaceous, twice the length of the calyx; STANDARD oblong, slightly notched at the extremity, and turning back; fig. 2. WINGS two, much shorter than the standard; fig. 3. KEEL very short, divided at the base. fig. 4.

STAMINA: ten FILAMENTS, one single, the rest united into one body; fig. 5. 6. ANTERÆ small, and yellow.

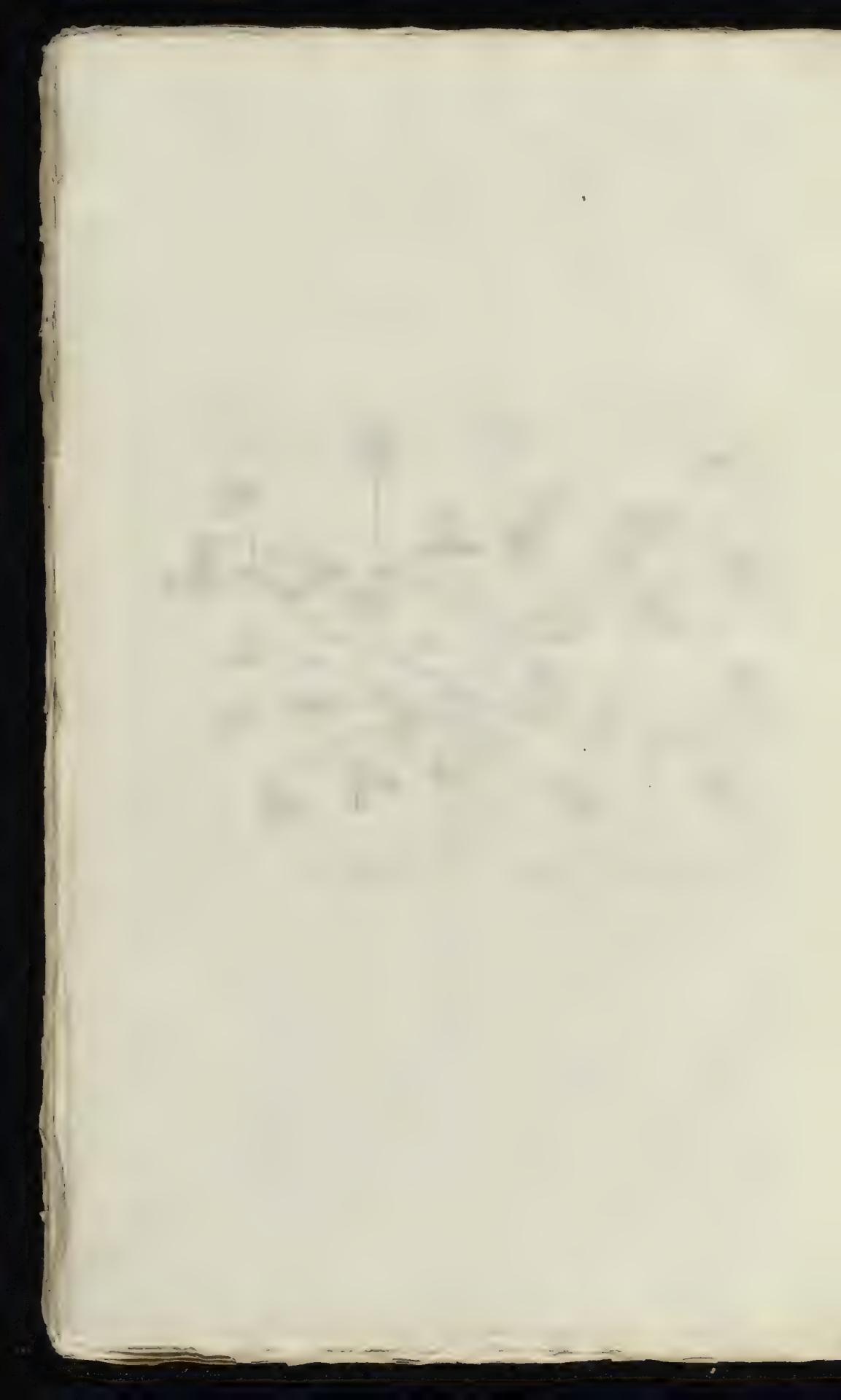
PISTILLUM: GERMEN oblong, roundish; STYLE tapering, the length of the germen; STIGMA yellowish, forming a little head. fig. 7.

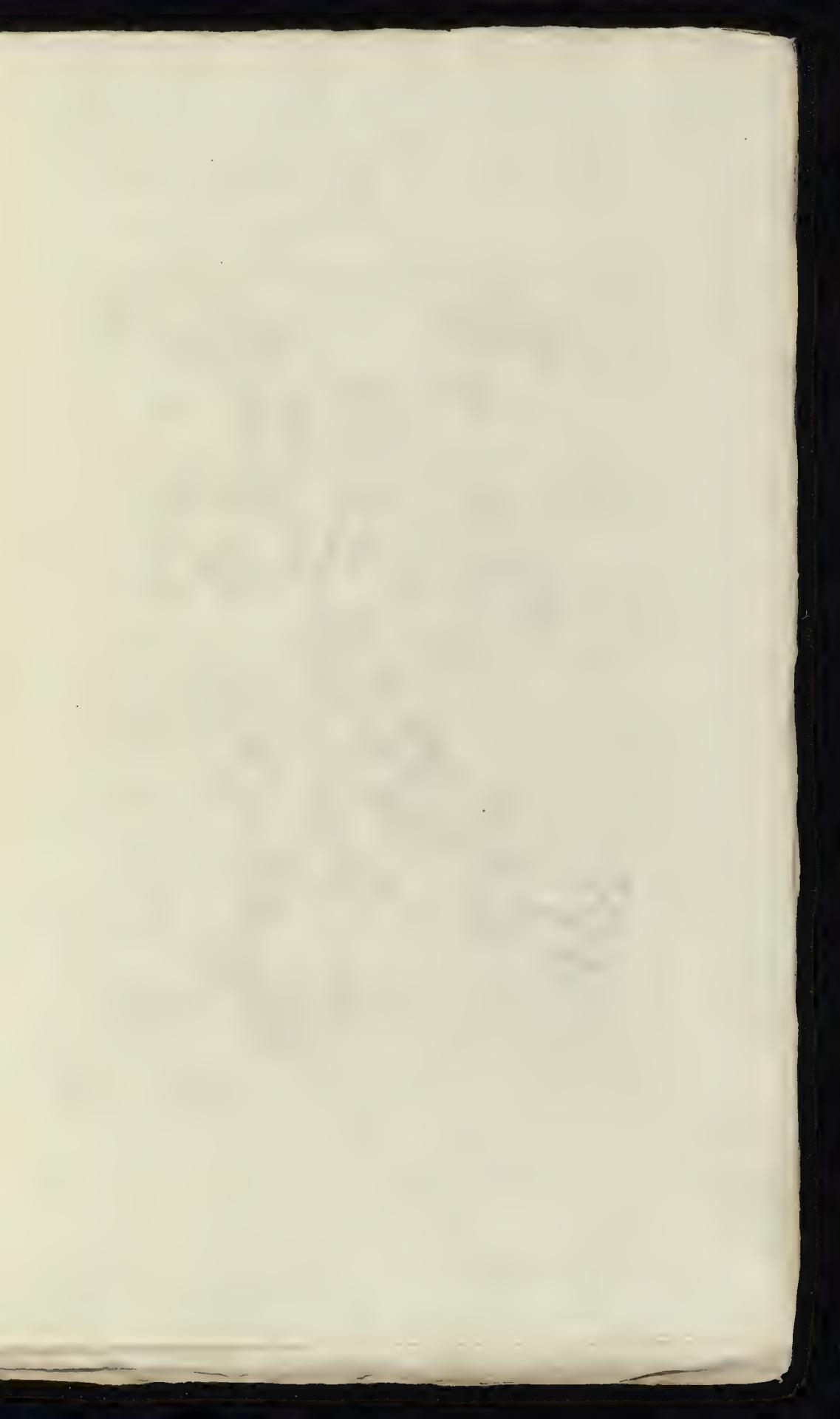
SEED-VESSEL: an oblong, round, jointed pod, fig. 8; terminating in a point and containing

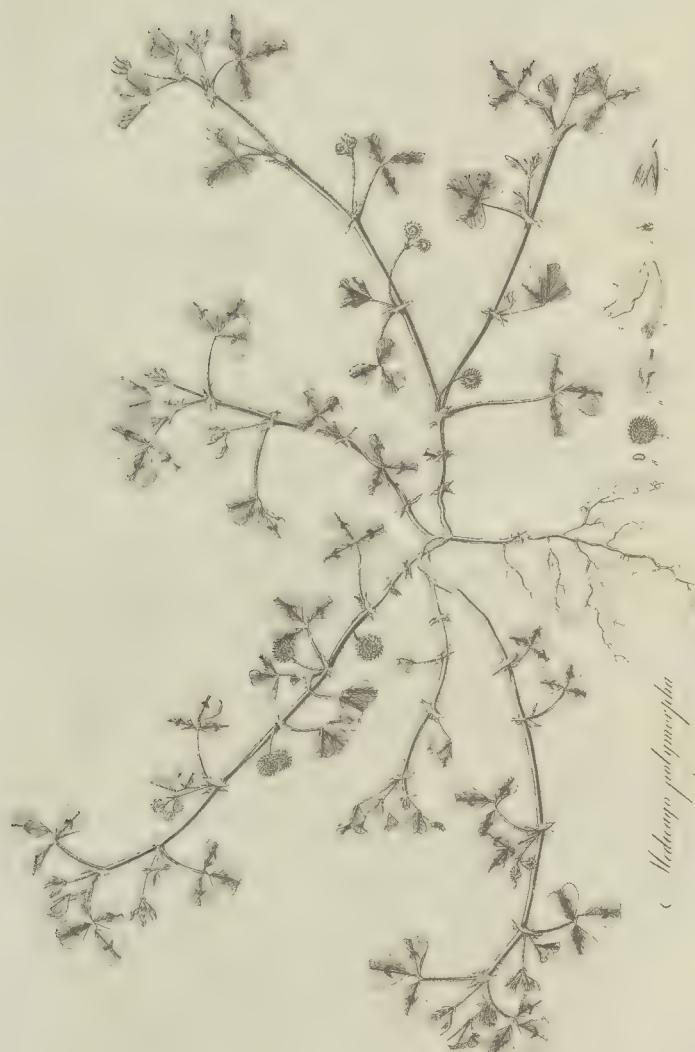
SEEDS from two to four. fig. 9.



Trifolium repens.







Hedysarum polymorphum

MEDICAGO ARABICA. HEART MEDICK, or CLAVER.

MEDICAGO Lin. Gen. Pl. DIADELPHIA DECANDRIA. Legumen compressum, cochleatum, Carina corollae a vexillo deflectens.

Raii Syn. Gen. 23. HERBÆ FLORE PAPILIONACEO SEU LEGUMINOSÆ.

MEDICAGO polymorpha leguminibus cochleatis, stipulis dentatis caule diffuso. Lin. Synt. Vegetab. p. 577. Op. pl. 1097.

MEDICA foliis emarginatis, ferratis, racemis paucifloris, siliquis globosis echinatis. Hall. hig. n. 383.

MEDICAGO polymorpha. Scopoli Fl. Carn. n. 942.

TRIFOLIUM cochleatum folio cordato maculato. Baubin. pin. 329.

TRIFOLIUM cordatum Ger. emac. 1190. Park. 1115. Raii Syn. 333. Heart Trefoil or Claver. Hudson. Fl. Angl. ed. 2. p. 331.

RADIX annua, fibrosa.

CAULES plures, pedales, et ultra, procumbentes, angulati, striati, purpurascens, pilosi, ramosæ.

FOLIA terna, obcordata, mucronata, obsoleta ferrata, lœvia, macula purpurea in medio notata.

PETIOLE superne canaliculati, pilosi.

STIPULÆ binæ, semifagittatae, ferratae.

FLORES plerumque binæ, pedicellati, pendulculis terribus, pilosis, petioli brevioribus; Bractæa minima, ad basin cujusvis pedicelli, et feta pilosa inter flosculos longitudine florum.

CALYX: PERIANTHUM monophyllum, tubulofum, subcampanulatum, pilofum, semiquindidum, lacinias acuminatis, subæqualibus, purpurascens. fig. 1.

COROLLA papilionacea, flava; Vexillum subrotundum, emarginatum, reflexum, lineis saturate flavis ad basin notatum. fig. 2. Alæ duæ, parvæ, vexillo breviores, croceæ, apice paulo excedentes. Carina concava, obtusa, alis paulo longior.

STAMINA: FILAMENTA diadelpha, coalita fere a apices, tubus sursum curvatus; ANTHÈRE minimæ, flavae. fig. 3. 4.

PISTILLUM: GERMIN viride, oblongum, subtus ubi stylus incipit emarginatum, cito se se spiraliter contorquens, et superne spinulas agens; STYLUS subulatus, erectus; SIGMA terminale, minimum. fig. 5. 6.

PERICARPO: Legumen subrotundo-cylindraceum, utrinque truncatum, spinulosum, spiraliter contortum. fig. 7.

SEMENT majuscum, reniforme, flavefens. fig. 8.

The plant here figured is intended to represent the *Trifolium cochleatum* folio cordato maculato of BAUHINE and RAY and the *Medicago polymorpha* var. *arabica* of LINNÆUS; how far it is in itself a variety, how far LINNÆUS and some other authors are justified in making so many varieties of one species *, or how far others are right in dividing one genus into so many species especially MONSIEUR GERARD, it would ill become me to determine, this plant and this only of the present tribe as far as I have hitherto seen is common in the neighbourhood of London; future observation added to culture may perhaps enable me hereafter to speak more decidedly on the subject.

The present plant is subject to considerable variation in size as also with respect to the brightness of the spots on its leaves.

It flowers in May and June.

On the edges of Charlton Sand-pits it grows in very great plenty and is not uncommon on banks and the borders of fields in a variety of other places.

When it grows luxuriantly one is tempted to suppose that it wou'd afford good fodder for cattle, it seems at least to deserve a trial.

* 2. *Medicago* coloris, foliis rotundis, turbatis, intertexta, arabica, coronata, ciliatis, lutea, nigra, rufa, nigra, laevia.

ROOT annual and fibrous.

STALKS numerous, about a foot in length, or more, procumbent, angular, striated, purplish, hairy, and branched.

LEAVES growing three together, inversely heart-shaped, terminated by a short point, faintly faved, smooth, with a purple spot in the middle of each.

LEAF-STALKS above grooved and hairy.

STIPULÆ two, the shape of half an arrow, and ferrated.

FLOWERS growing generally two together, standing on footstalks which are round, hairy, and shorter than the footstalks; Bractæa very small, at the base of each flower-stalk, and a hairy seta or bristle betwixt the flowers of the same length with the flowers.

CALYX: a PERIANTHUM of one leaf, tubular, somewhat bell-shaped, hairy, divided half way down in five segments, which are pointed, nearly equal and purplish. fig. 1.

COROLLA papilionaceous, and yellow; Standard roundish, notched at the end, and turning back, marked at its base with lines of a deeper yellow colour. fig. 2. Wings two, small, shorter than the standard, saffron coloured, separating a little from one another at the tips. Keel hollow, blunt, a little longer than the wings. fig.

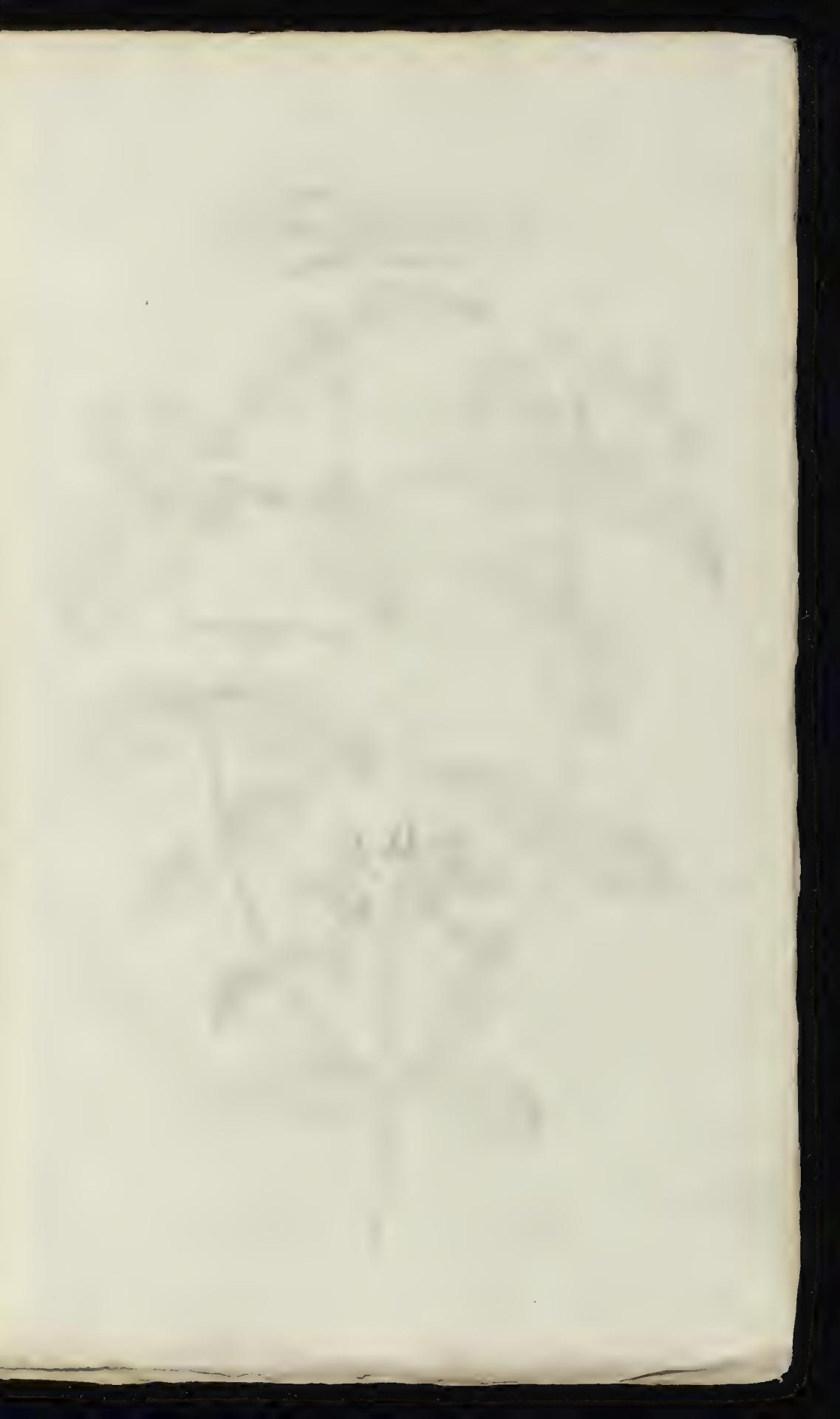
STAMINA: FILAMENTA uniting into two bodies almost to the tips, tube bending upward; ANTHELE very minute and yellow. fig. 3. 4.

PISTILLUM: GERMIN green, oblong, below where the style begins notched, soon spirally twisting itself, and from its upper part throwing out little spines; STYLE tapering, upright; SIGMA terminal, and very minute. fig. 5. 6.

SEED-VESSEL: a Pod of a roundish cylindrical shape, cut off at each end, spinous, and spirally twisted up. fig. 7.

SEED rather large, kidney-shaped, and yellowish. fig. 8.

Linn. Syst. Pl. 1. 23.





Hypericum

Androsaceum.

HYPERICUM ANDROSÆMUM. TUTSAN.

HYPERICUM Lin. Gen. Pl. POLYADELPHIA POLYANDRIA

Cal. 5. partitus, Petala 5. Filamenta multa, in 5 phalanges basi connata, Capsula.

Raii Syn. Gen. 24. HERBÆ PENTAPETALÆ VASCULIFERÆ.

HYPERICUM Androsænum floribus trigynis, fructibus baccatis, caule fruticoso ancipiti. Lin. Syſt.

Vegetab. p. 583. Sp. Pl. p. 1102.

ANDROSÆMUM maximum frutescens. B. Pin. 280.

ANDROSÆMUM vulgare. Park. 575.

CLYMEMUM Italorum. Ger. emac. 548.

HYPERICUM maximum Androsænum vulgare dictum. Raii Syn. Tutsan or Park-leaves.

Hudson Fl. Angl. ed. 2. p. 332.

Ligbyfoot Fl. Scot. p. 415.

RADIX perennis, crassa, lignosa, rubens, fibras longissimas emittentes.

CAULES suffruticosi, ancipites, bipedales et ultra, ramosi, rubentes, glabri.

FOLIA opposita, sessilia, ovata, integerrima, lavia, inferne pallidiora, venis plurimis parum extantibus reticulata, per aetatem rubicunda, inferioribus plerunque minoribus.

FLORES flavi, pro ratione plantæ parvi, in Cyma variè divisa dispositi.

CALYX: PERIANTHUM quinquepartitum, lacinia ovatis, obtusis, subnervosis, inaequalibus, erectis, demum reflexis.

COROLLA: PETALA quinque, ovata, obtusa, subæqualia, calyx paulo longiora, patentia, concavissima, apicibus paululum inflexis, decidua.

STAMINA: FILAMENTA plurima, ultra quadraginta, corolla longiora; ANTHÈRE parvæ, tubrotundata.

PISTILLUM: GERMIN subrotundum, nitidum, flavescens; STYLI tres, longitudine germinis, erecti; STIGMATA parva, rotundata.

PERICARPIUM: CAPSULA ovato-rotundata, primo baccaformis, e flavo virescens, dein ruberrima, demum nigricans, exfusca, trilocularis, feminibus plurimis miniumis referata

ROOT perennial, thick, woody, of a reddish colour, sending out very long fibres.

STALKS somewhat shrubby, slightly winged, two feet high and upward, branched, of a reddish colour and smooth.

LEAVES opposite, sessile, ovate, entire, smooth, paler on the under side, reticulated with numerous veins which project but little, becoming through age of a reddish or purple colour, the lowermost generally the least.

FLOWERS of a yellowish colour, small for the size of the plant, disposed in a *Cyma* variously divided.

CALYX: a PERIANTHIUM deeply divided into five segments, which are ovate, obtuse, somewhat rib'd, unequal, upright, finally turned back.

COROLLA: five PETALS, ovate, obtuse, nearly equal, a little longer than the calyx, spreading, somewhat hollow, the tips bending a little inward, deciduous.

STAMINA: FILAMENTS numerous, more than forty, longer than the corolla; ANTHÈRE small and roundish

PISTILLUM: GERMIN roundish, shining, yellowish; STYLES three, the length of the germin, upright; STIGMATA, small and roundish.

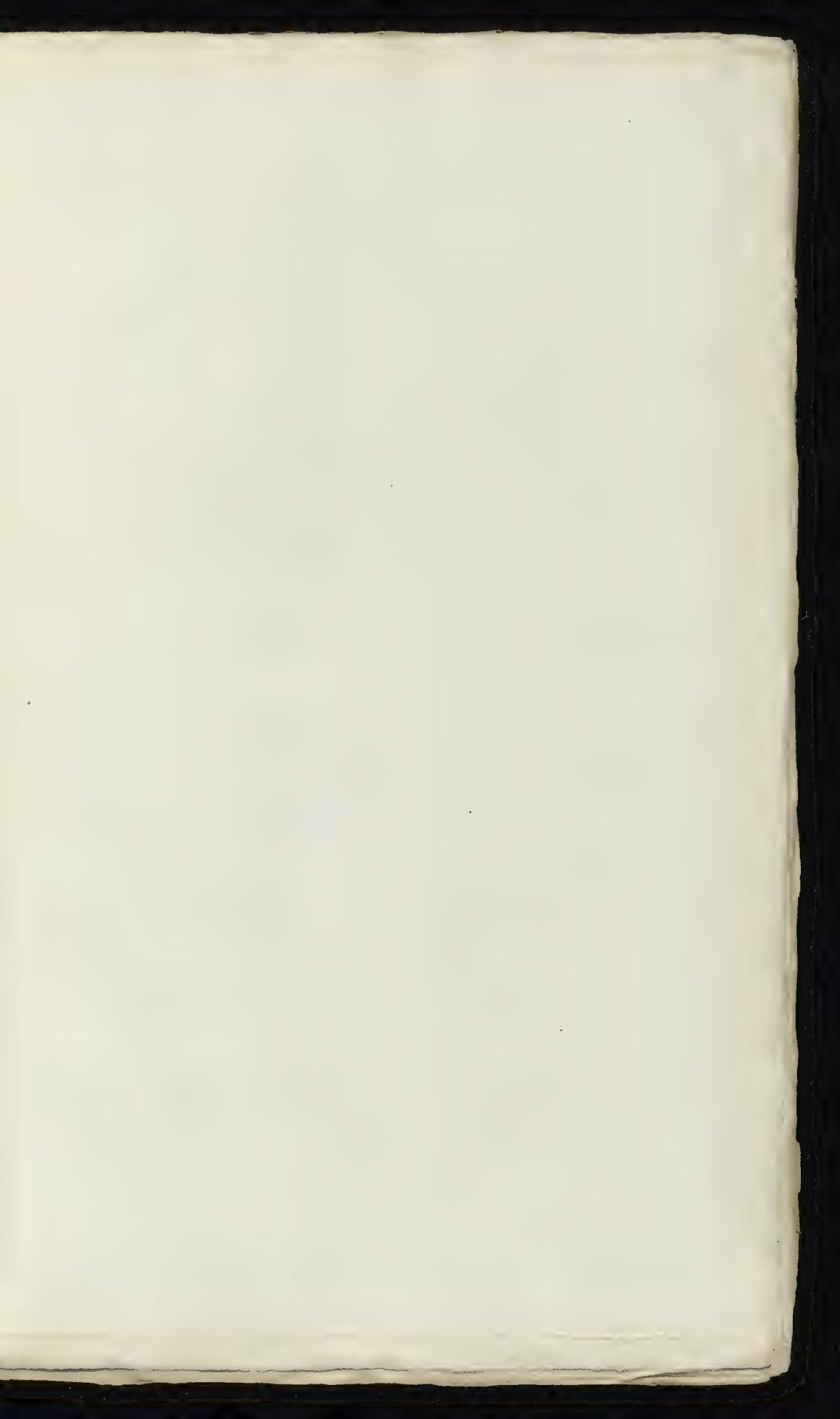
SEED-VESSEL: a CAPSULE of a roundish egg-shape, at first assuming the appearance of a berry of a yellowish green colour, afterwards of a bright red colour, lastly blackish, having three cavities which are filled with numerous small seeds.

The French call this plant *Toute saine*, *Allbeal*, (*vide Town. Hist. des Pl.*) whence as PARKINSON observes, we have evidently borrowed our English name of *Tutsan*. They appear to have been equally fond of attributing vulnerary qualities to plants as our countryman GERARD, but perhaps on no better grounds, the *Tutsan* and the *Allbeal* being now equally neglected. Its other name of *Park-leaves*, by which it is less frequently called, it has doubtless acquired from being commonly found in Parks.

We may remark of the *Androsænum*, that neither HALLER, LINNÆUS, JACQUIN, SCOPOLI, or CEDER enumerate it in their respective Flora's.

In many parts of England it is by no means an uncommon plant; it is chiefly found in or near Woods. About London all our *Hypericums* abound more than this, which I have met with in one wood only, viz. the *Oa'* of *Hounour* Wood, near Peckham Rye, adjoining *Norwood*. It flowers in July and August, and ripens its seed-vessels, which have much the appearance of berries in September.

It is not uncommon in Gardens.



HYPERICUM HIRSUTUM. HAIRY ST. JOHN'S WORT.

HYPERICUM Lin. Gen. Pl. POLYADELPHIA POLYANDRIA.

Cal. 5, partitus, Petala 5, Filamenta multa, in 5 phalanges basi connata. Capitula.

Raii Sym. HERBE PENTAPETALE VASCULIFERA.

HYPERICUM hirsutum floribus trigynis, calycibus ferrato-glandulosis, caule tereti erecto, foliis ovatis subpubescens. Lin. Syst. Vegetab. Sp. Pl. 1105. Fl. Suec. n. 682.

HYPERICUM foliis ovatis, per oram punctatis, calycibus lanceolatis, ferratis, globuligeris, Haller. hif. n. 1042.

HYPERICUM hirsutum Scopoli Fl. Carniol. p. 92. n. 945.

ANDROSÆMUM hirsutum, Baubin. pin. 280.

HYPERICUM Androsænum dictum. Baub. hif. III. 382.

ANDROSÆMUM alterum hirsutum. Col. cephr. I. p. 75. t. 74.

ANDROSÆMUM Ascyon dictum, caule rotundo hirsuto. Moris. hif. 2. p. 971. f. 5. t. 6. f. 11.

HYPERICUM villosum erectum, caule rotundo. Tournafort. Inst. 255. Raii Sym. Tutsan St. John's Wort.

Hudson Fl. Angl. ed. 2. p. 333. Lightfoot Fl. Scot. p. 419.

RADIX perennis, fibrosa, fibris fuscis, rigidis, subligatis.

CAULIS sesquipedalis, ad tripedalem, erectus, solidus, rubicundus, teres, pubescens, plerumque simplex, ramosus etiam occurrit, rarius vero quam in hyperico perforato.

FOLIA alterne opposita, oblonga, obtusa, sessilia, utrinque villosula, margine minutim ciliata, septemnervia, punctis diaphanis minutissimis per totam superficiem adpersa.

RAMI: rudimenta rami constantes foliis quatuor decussatis in axillis foliorum sapientia observantur, haec vero aliquando omnino defunt, et non-nunquam in ramos producentur.

FLORES flavi, terminales, in panicula, oblonga, subspicata.

CALYX: PERIANTHUM quinquepartitum; lacinias lanceolatis, bifidulis, margine glandulosis, foliola etiam et gemmas calyci subiecta glandulis nigris pedicellatis ornantur. fig. 1.

COROLLA: PETALA quinque, flava, oblongo-ovata, obtusa, patentia, striata, fig. 2.

STAMINA: FILAMENTA viginti, ad triginta, in tres phalanges obscure divisa, capillaria, recta, flava, corolla breviora; ANTERÆ subrotundatae, didymæ, flavae. fig. 3.

PISTILLUM: GERMIN subrotundatum. STYLI tres, simplices, distantes, longitudine staminum; STIGMATA simplicia. fig. 4.

PERICARPIUM: Capsula oblonga, trilocularis, trivalvis. fig. 5. 6.

SEMINA pluita, minima. fig. 7.

ROOT perennial, fibrous, the fibres brown, rigid, and somewhat woody.

STALK a foot and a half to three feet high, upright, solid, reddish, round, hairy, or downy, generally simple, but sometimes branched, though much less so than the common Saint John's Wort.

LEAVES alternately opposite, oblong, obtuse, sessile, hoary on each side, the edge finely ciliated, marked with seven ribs, and very minute transparent dots spread all over its surface.

BRANCHES: rudiments of branches consisting of four leaves forming a cross are generally observed in the axils of the leaves, these however are sometimes wanting, and sometimes are drawn out into branches.

FLOWERS yellow, terminal, in an oblong panicle forming a kind of spike.

CALYX: a PERIANTHUM divided into five segments; which are lanceolate, with two grooves, and glandular on the edge, the small leaves and buds below the calyx are also ornamented with black glands placed on footstalks. fig. 1.

COROLLA: five PETALS of a yellow colour and oblong oval shape, blunt, spreading and striated. fig. 2.

STAMINA: from twenty to thirty FILAMENTS obscurely divided into three bundles or fasciculi, very fine, strait, yellow and shorter than the Corolla; Antheræ roundish, double, yellow. fig. 3.

PISTILLUM: GERMIN roundish: STYLES three, simple, spreading, the length of the stamina.

STIGMATA simple. fig. 4.

SEED-VESSEL an oblong capsule of three cavities and three valves. fig. 5. 6.

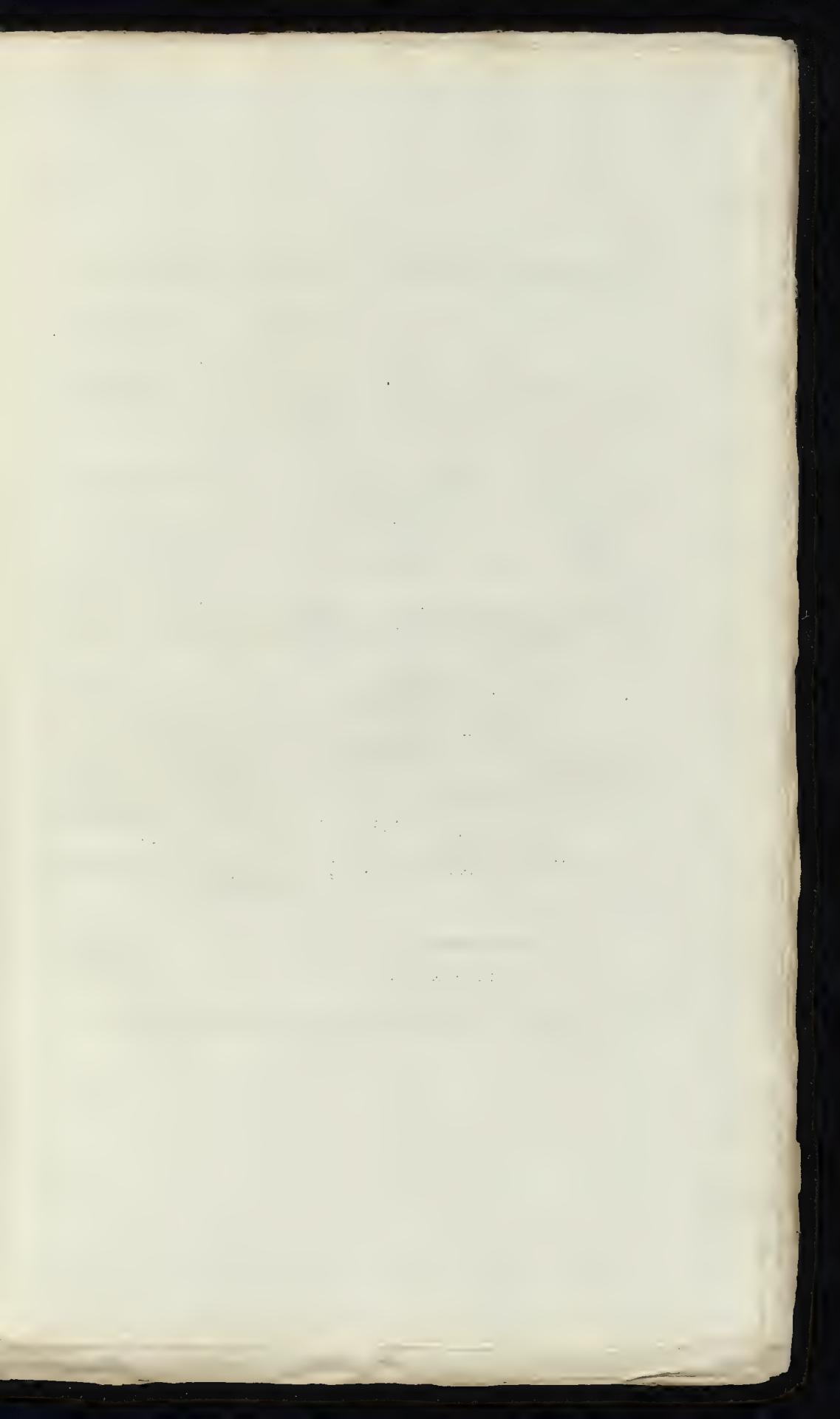
SEEDS numerous and very minute. fig. 7.

The more ancient Botanists paying but little regard to the nicety of distinction, overlooked this species of *H. perenne*; COLUMNÆ, possesting greater discernment than his predecessors appears first to have figured and described it; by superficial observers it may easily be mistaken for the common St. John's Wort, but differs from it in being a taller plant, having a stalk perfectly round and hoary, and the edges of the calyx beset with black glands, it is also more apt to grow in woods and coppices, though it is frequently met with in hedges. It flowers in July and August.

It grows plentifully in a field just beyond Dulwich College, also about the Oak of Honour Wood near Peckham, and most of the Woods near Town.



Hypericum hirsutum.



HYPERICUM HUMIFUSUM. TRAILING St. JOHN'S WORT.

HYPERICUM Limaei. Gen. Pl. POLYADELPHIA POLYANDRIA.

Cal. 5. partitus. Petala 5, Filamenta multa, in 5. phalanges basi connata. Capsula.

Raii. Syn. Gen. 24 HERBE PENTAPETALE VASCULIFERE.

HYPERICUM humifusum floribus trigynis axillaibus, solitariis, caulibus ancipitibus prostratis filiformibus, foliis glabris. Lin. Syst. Vegetab. p. 332. Sp. Pl. 1105. Fl. Saecic. 681.

HYPERICUM caule prostrato, foliis ovatis, calycibus ferratis punctatis. Haller. Hist. p. 5. n. 1039.

HYPERICUM minus supinum vel supinum glabrum. C. Baub. pin. 279.

HYPERICUM minus supinum. Park. 572.

HYPERICUM supinum glabrum Ger. emac. 541. Raii. Syn. p. 342. the least trailing St. Johns Wort.

Hudson. Fl. Angl. ed. 2. p. 332.

Lightfoot. Fl. Scot. p. 418.

RADIX perennis, lutescens, fibrosa.

CAULES plures ex eadem radice, spithamei, procumbentes, teretes, vix manifeste ancipites, leves, rubentes, summitate ramofici.

FOLIA opposita, oblongo ovata, obtusa, glabra, integrerrima, margine punctis nigris notata.

CALYX: PERIANTHUM quinquepartitum, lacinias magnis, inaequalibus, ovato oblongis, margine reflexis et glandulis ferrato punctatis, mucrone rufo terminatis. fig. 1.

COROLLA: PETALA quinque, oblonga, flava, obtusa, calyce pauci longiora, margine glandulis punctata. fig. 2.

STAMINA: FILAMENTA raro ultra viginti, in tres phalanges distincte divisa; ANTHERÆ minime, flave. fig. 3.

PISTILLUM: GERmen subrotundum, STYLI tres, simplices, distantes, longitudine staminum; STIGMATA simplicia. fig. 4.

PERICARPIUM: CAPSULA oblongo ovata, membranacea, trilocularis, immatura ruberrima.

SEMINA plurima, minima.

ROOT perennial, of a yellowish colour and fibrous.
STALKS several from the same root, about half a foot in length, procumbent, round, scarce perceptibly two edged, smooth, of a reddish colour and branched at top.

LEAVES opposite, oblong, oval, obtuse, smooth, entire, dotted on the edge with black.

CALYX a PERIANTHUM divided into five segments, which are large, unequal, oval, oblong, the edge turned back and sawed as it were with black glands, terminating in a red point. fig. 1.

COROLLA: five oblong yellow PETALS, blunt at the end, a little longer than the calyx, and dotted on the edge with glands. fig. 2.

STAMINA: FILAMENTA seldom more than twenty, distinctly divided into three bodies; ANTHERÆ very small and yellow. fig. 3.

PISTILLUM: GERmen roundish; STYLES three, simple, spreading, the length of the stamina; STIGMATA simple. fig. 4.

SEED-VESSEL an oblong oval Capsule, membranous, of three cavities, of a very bright red colour before it is ripe.

SEEDS numerous and very minute.

THIS is the least of all our *Hypericums*, but scarcely inferior to any of them in beauty and delicacy.

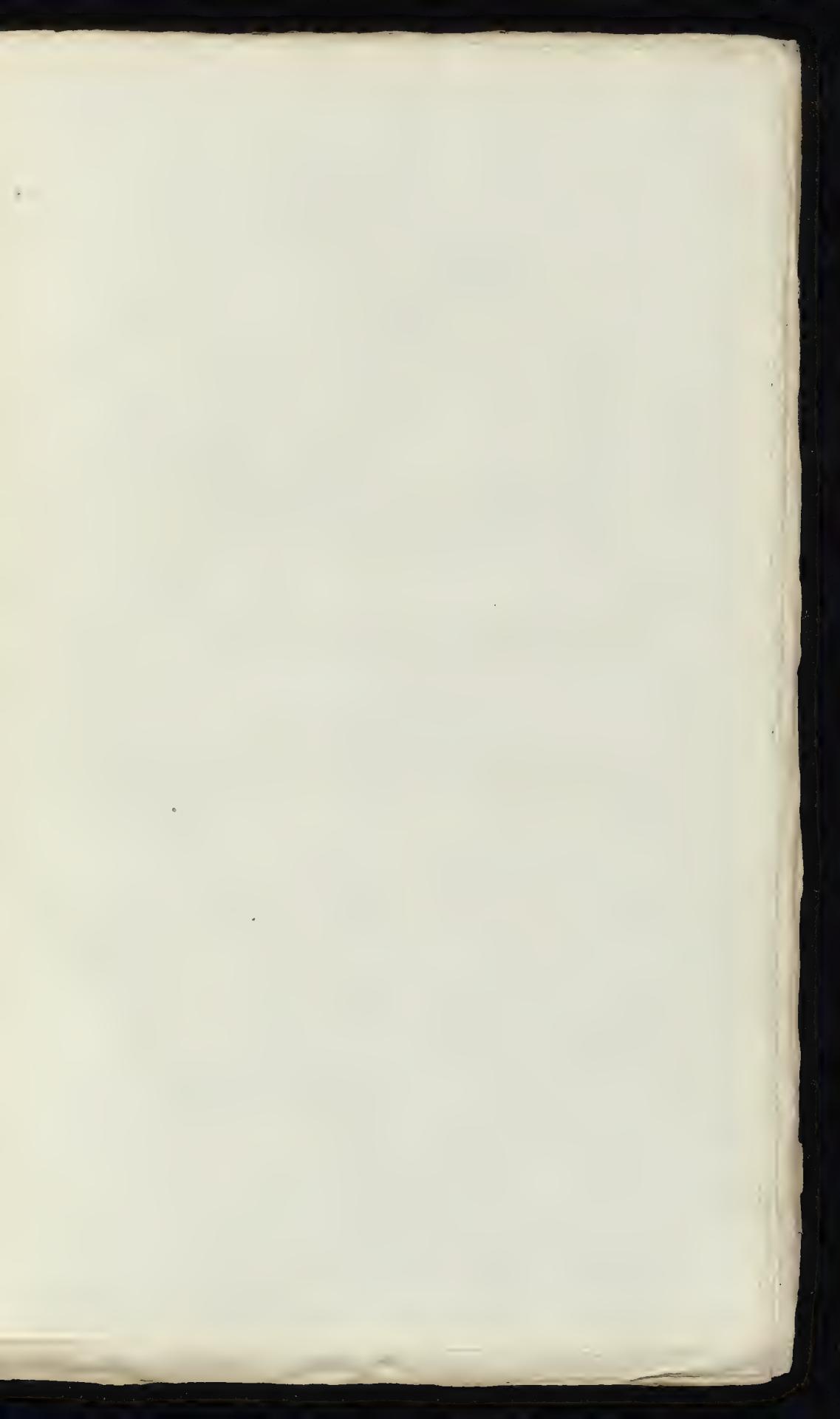
It grows frequent enough, in gravelly pastures, in fields that have long lain fallow, and likewise on heaths, especially where the soil is moist and clayey.

It flowers in June, July, and August.

SCOPOLI without any good grounds, suspects it to be a monstrous variety of the *Hypericum perforatum*, from which it differs almost as much as it is possible for one species to differ from another.



Hypericum humifusum



PICRIS ECHIOIDES. O X - T O N G U E.

PICRIS *Linnæi*. Gen. Pl. SYNGENESIA POLYGAMIA EQUALIS.

Recept. nudum. Cal. calyculatus. Pappus pluminosus. Sem. transversum sulcata.

Raii Syn. Gen. 6. HERBÆ FLORE COMPOSITO; NATURA PLENO LACTESCENTES.

PICRIS *echioides* perianthiis exterioribus pentaphyllis, interioribus aridato majoribus. *Linnæi*. Syst.

Vegetab. f. 593. Spec. Plant. 1114.

HIERACIUM echioides capitulis cardui benedicti. Baubin. Pin. 128.

BUGLOSSUM luteum. Gerard. emac. 798.

LINGUA BOVIS. Parkinson. 800. Raii Syn. p. 196, Lang de bœuf.

Hudson. Fl. Angl. ed. 2. p. 342.

RADIX annua, ramosa.

ROOT annual, and branched.

CAULIS bi aut tripodalis, ramosissimus, ramis divaricatis, erectus, rubens, striatus, spinosus, spinis plurimis, horizontalibus, apice hamatis.

STALK two or three feet high, very much branched, (the branches)divaricating, upright, of a reddish purple colour, striated, and spinous, the spines numerous, horizontal, and hooked at the extremity.

FOLIA amplexicaulia, oblonga, acuta, tuberculata, spinosa.

LEAVES embracing the stalk, oblong, pointed, covered with tubercles and spines.

PEDUNCULI fulcati, versus apicem sensim incrassati.

FLOWER-STALKS grooved, and gradually enlarged towards the extremity.

CALYX communis duplex, exterior maximus, pentaphyllus, Involucro simili, foliolis cordatis, spinosis, interior imbricatus, squamæ extiores paucæ, minimaæ, inæquales, interiores eræ, æqualis, aristatae, fig. 1, 2, carinatae, carinæ cum aristâ hispidis, setæ inferiores uniculis quatuor apice instrutæ, fig. 3, superiores spinosæ, simplices, longiores.

CALYX common to many florets, and double; the exterior one large, and composed of five heart-shaped prickly leaves, which resemble an Involucrum; the inner one imbricated; the outermost scales few, small, and uneven; the innermost upright, equal, terminating with an arista, fig. 1, 2, keeled, the keel together with the arista hispid, the little spines on the lower part terminating in four small hooks, fig. 3, those on the upper part simple and longer.

COROLLA composita, Corollæ hermaphrodite, tubulosa, flavæ; Tubus tenuis, pilosus, fig. 4, albidus; Limbus quinquedentatus, dentibus inæqualibus.

COROLLA compound; the Florets hermaphrodite, and yellow; the Tube slender, hairy, fig. 4, and whitish; the Limb terminated by five unequal teeth.

STAMINA: FILAMENTA quinque, capillaria, brevissima: ANTHÈRE in tubum tenuem, flavum, coalitæ.

STAMINA: five FILAMENTS, very fine and short: ANTHERE united in a slender, yellow tube.

PISTILLUM: GERMEN oblongum, lœve, album: STYLUS filiformis, antheris longior: STIGMATA duo, reflexa.

PISTILLUM: GERMEN oblong, smooth, and white: STYLE thread-shaped, and longer than the anthers: STIGMATA two, turning back.

SEmen oblongum, rufum, transversim minutissime striatum.

SEED oblong, of a reddish orange colour, very finely striated transversely.

PAPPUS stipitatus, pilosus, fig. 5.

DOWN standing on a foot-stalk, and hairy, fig. 5.

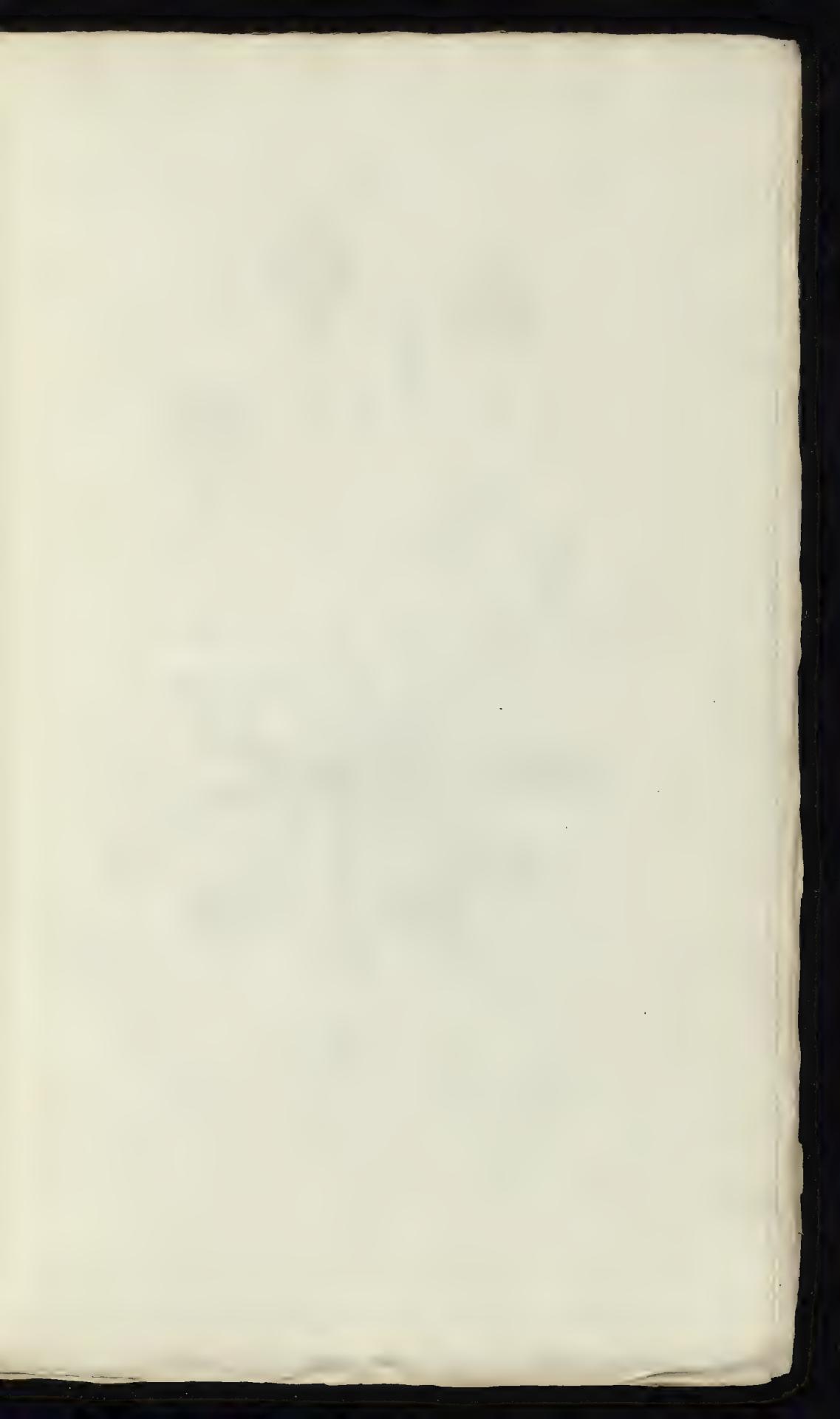
THE only use to which we find this singular plant to have been applied, is as a pot-herb. Raii. Hist. p. 233. to which purpose its appearance is certainly no recommendation.

It grows not unfrequently on banks, on the edges of fields, and in woods that have been cut down; and flowers in June and July.



Morus alba L.

Sennarabia





Hypochaeris radicata

Simonin

HYPOTHÆRIS RADICATA. LONG-ROOTED HAWKWEED.

HYPOCHÆRIS Lin. Gen. Pl. Sync. POLYGAMIA EQUALIS. Recept. paleaceum. Cal. subimbricatus. Pappus plumosus.

Raii Syn. Gen. 6. HERBÆ FLORE COMPOSITO NATURA PLENO LACTESCENTES.

HYPOCHÆRIS radicata foliis runcinatis obtusis scabris, caule ramoso nudo laxe, pedunculis squamosis. Lin. Sp. Pl. p. 1140. Fl. Suec. n. 709.

HYPOCHÆRIS foliis semipinnatis hirsutis, caule nudo, brachiatu. Haller. Hist. p. 3. n. 3.

ACHYROPHORUS radicatus. Scopoli. Fl. Carn. n. 987.

HIERACIUM Dentis leonis folio obtuso majus. Baubin. pin. 127.

HIERACIUM longius radicatum. Lab. ic. 238. Gerard. emac. 298. Parkinson. 790. Raii. Syn. long rooted Hawkweed.

Hudson. Fl. Angl. ed. 2.

Oeder. Fl. Dan. ic. 150.

Lightfoot Fl. Scot. p. 443.

RADIX perennis, crassitie digitii minimi, alte in terram descendens, albida, plerumque simplex, lac-

FOLIA radicata, supra terram expansa, planiuscula, oblonga, obtusa, sinuato-dentata, dentibus subobtusis, hirsuta, pilis simplicibus, erectis, e punctis prominulis prodeuntibus, caulinaria.

CAULES saepe plures ex eadem radice, pedales aut bipedales, suberecti, nudi, squamis solum brevibus, ovato-acutis, ciliatis, ad exortum ramorum in fructu, glaberrimi, glauci, substriati, tenaces, solidi, ramosi.

PEDUNCULI longi, squamis paucis obsitae, versus apicem paululum incrassati.

CALYX communis imbricatus, squamis ovatis, acutis, glabris, apice rufis, carinâ ciliata pilis rigidulis. fig. 1.

COROLLA Composita, imbricata; Corollulis hermaphroditis, aequalibus, numero, Propria monopetalata, ligulata, truncata, quinque-dentata, tubo apice piloso. fig. 2. 3.

STAMINA: FILAMENTA quinque, capillaria; AN-

THERÆ in tubum coalita, flavae.

PISTILLUM: GERMEN ovatum; STYLUS filiformis, longitudine Staminum; STIGMATA duo, reflexa.

SEMIN oblongum, rufum, striatum. fig. 5.

PAPPUS stipitatus, plumosus.

RECEPTACULUM paleaceum, paleæ longæ, nitidæ,

membranacea, concavæ. fig. 4.

ROOT perennial, the thickness of the little finger, running deeply into the earth, generally simple, of a whitish colour, and milky within.

LEAVES next the root expanded on the ground, flat-tish, oblong, obtuse, sinuated and toothed (the teeth bluntish,) hirsute, the hairs simple, upright, and proceeding from little prominent points; stalk leaves none.

STALKS often several from the same root, one or two feet high, nearly upright, naked, instead of leaves having only short, oval, pointed scales, edged with hairs at the setting on of the branches, very smooth, glaucous, somewhat striated, tough, solid, and branched.

FLOWER-STALKS long, befit with a few scales, towards the top a little thickened.

CALYX common to many florets, composed of scales which are of an oval shape, pointed, smooth, reddish at top, the keel edged with stiffish hairs. fig. 1.

COROLLA Compound, the florets laying one over another, hermaphrodite Florets equal and numerous; each Floret monopetalous, tubular at bottom and spreading at top, cut off at the extremity and terminating in five teeth, the tube hairy at top. fig. 2. 3.

STAMINA: five FILAMENTS, very fine; ANTHÈRE uniting in a tube, of a yellow colour.

PISTILLUM: GERMEN oval; STYLE thread-shaped, the length of the Stamina; STIGMATA two, turning back.

SEED oblong, reddish and finely grooved. fig. 5.

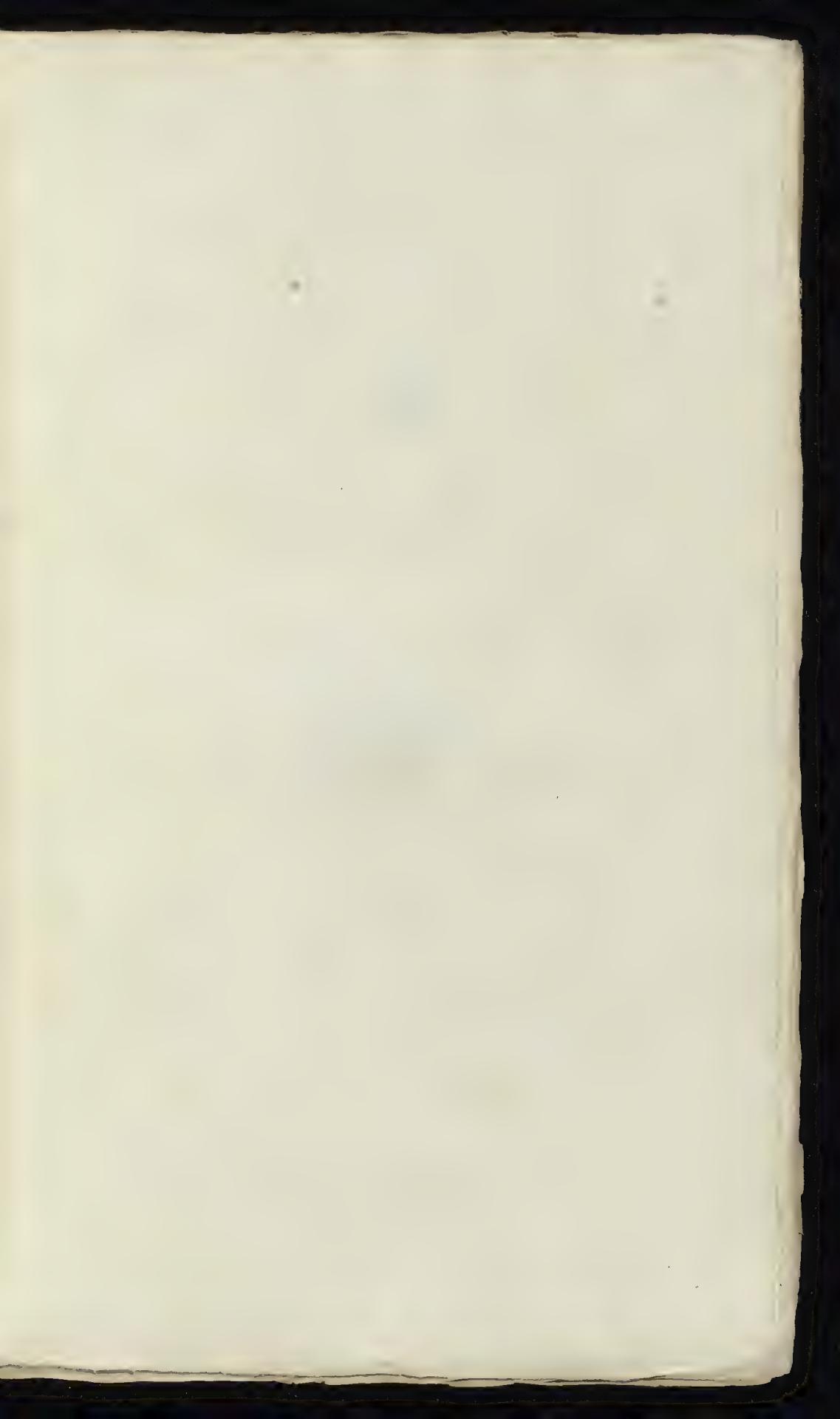
DOWN standing on a foot-stalk and feathery.

RECEPTACLE chaffy, chaff long, shining, membranous, and hollow. fig. 4.

THIS species of *Hypochæris* receives its name of *radicata* from the length of its root, by which it is particularly distinguished from the *Leontodon autumnale* LINN: or *Hieracium radice succisa* of BAUBIN, in its fructification it agrees with the *Hypochæris glabra* already figured, size excepted, the fine membranous *Paleæ* so observable in that plant serve equally to characterize the genus in this species, which is altogether as common with us as the other is scarce.

It grows on dry Banks, also on Heaths, in Meadows and Pastures, and in the early part of the Summer its blossoms render it a very conspicuous plant in those situations.

In barren soils particularly on Heaths it is much smaller than the plant here figured, but its hairiness and the size of its blossoms will always prevent its being mistaken for the *Hypochæris glabra*.





Hypochaeris glabra

Lacuna oblonga

HYPOTHÆRIS GLABRA. SMALL-FLOWERED HAWKWEED.

HYPOTHÆRIS *Linnæi Gen. Pl. SYNGENESIA POLYGAMIA EQUALIS.*

Receptaculum paleaceum. Cal. subimbricatus. Pappus plumosus.

Raii Syn. Gen. 6. HERBE FLORE COMPOSITO NATURA PLENO LACTESCENTES.

HYPOTHÆRIS *glabra*, calycibus oblongis imbricatis, caule ramoso nudo, foliis dentato-sinuatis.

Linn. Syst. Vegetab. p. 601. Sp. Pl. p. 1140.

HYPOTHÆRIS foliis glabris sempiternatis. *Haller. Catal. Plant. Gotting. p. 421. Hjel. Plant. addend ad tom. I. v. 3. p. 180.*

HIERACIUM minus dentis leonis folio oblongo glabro. *Baubin. pin. 127.*

HYPOTHÆRIS chondrillo folio, parvo flore. *Vaillant. a. 1721. p. 214.*

HIERACIUM parvum in arenosis nascentis, feminum pappis dense radiatis. *Raii. Syn. 166.*

HIERACIUM minimum. *Col. eph. I. 27. ic.*

Hudson. Fl. Angl. p. 303. ed. 2. p. 347.

Oeder. Fl. Dan. Ic. 424.

Lightfoot. Fl. Scot. p. 442.

RADIX annua, crassifolia, pennata coracis, fusiformis, paucis fibrillis instructa, pallide fusca.

FOLIA radicalia plurima, supra terram expansa, longitudine minimi digiti, et ejusdem circiter latitudinis, finito-dentata, ad apicem paulo latiora, glabriuscula, margine praefertim pilis hispidulis ciliata, lactescens; caulina pauca, miliacea.

CAULES plerumque plures, spithamei, subrecti, in duos vel tres ramos divisi, glauci, teretes, subnudi.

PEDUNCULI squamosi, sub floribus paululum incrassati.

FLORES minimi, lutei.

CALYX communis, primum cylindraceus, peracta florescentia oblongo conicus, *magnus*; squamae laevae, imbricatim positis, ovato-lanceolatae, inaequales, apicibus rubris.

COROLLA composta, imbricata, uniformis; corollulis hermaphroditis, aequalibus, numerosis; propri monopetalis, tubus infundibuliformis, apice hispidulus, fig. 3; limbus planus, quinquedentatus, fig. 2.

STAMINA: FILAMENTA quinque, in tubum coalita, fig. 4.

PISTILLUM: GERMEN infra corollam proprium, fig. 6: STYLUS filiformis, longitudine staminum: STIGMATA duo reflexa, fig. 5.

RECEPTACULUM paleaceum, palea concava, lanceolata, acuminata, nitida, longitudine papapi, deciduae, fig. 1.

SEMINA sublinearia, basi acuminata, castanea, fig. 7, lente vifa lineata, facbra, fig. 8, in radio seffilia, in disco petiolata.

PAPPUS inaequalis, plumosus, rigidulus, fig. 9.

ROOT annual, about the thickness of a crow quill, tapering, furnished with few fibres, of a pale brown colour.

LEAVES of the root numerous, spread on the ground, about the length of the little finger, and of the same breadth, sinuated, or deeply indented, a little broadest at top, smooth, but not perfectly so, the edges particularly, being thinly beset with stiffish hairs; those on the stalk few, and very minute.

STALKS usually several, about seven inches high, nearly upright, divided into two or three branches, round, almost naked, and of a glaucous colour.

FLOWER-STALKS scaly, a little thickened under the flower.

FLOWERS very small, and yellow.

CALYX common to many flowers, at first cylindrical, when the flowering is over, becoming of an oblong conical shape, and larger; the leaves smooth, placed one over another, of an oval pointed shape, uneven, the tips red.

COROLLA com. und, the florets placed one over the other, of an uniform shape, hermaphrodite, equal, and numerous; each floret monopetalous; the tube funnel-shaped, with a few stiffish hairs at top, fig. 3; the limb flat, with five teeth, fig. 2.

STAMINA: five FILAMENTA united into a tube, fig. 4.

PISTILLUM: GERMEN placed beneath each single floret, fig. 6: STYLE thread-shaped, the length of the stamina: STIGMATA two, bending back, fig. 5.

RECEPTACLE chaffy, chaff hollow, narrow, pointed, thinning, the length of the down, and deciduous, fig. 1.

SEEDS nearly linear, tapering to a point at bottom, of a chestnut colour, fig. 7, viewed with a magnifier, finely grooved, and rough; fig. 8, those in the circumference seffile, those in the center standing on foot-falls.

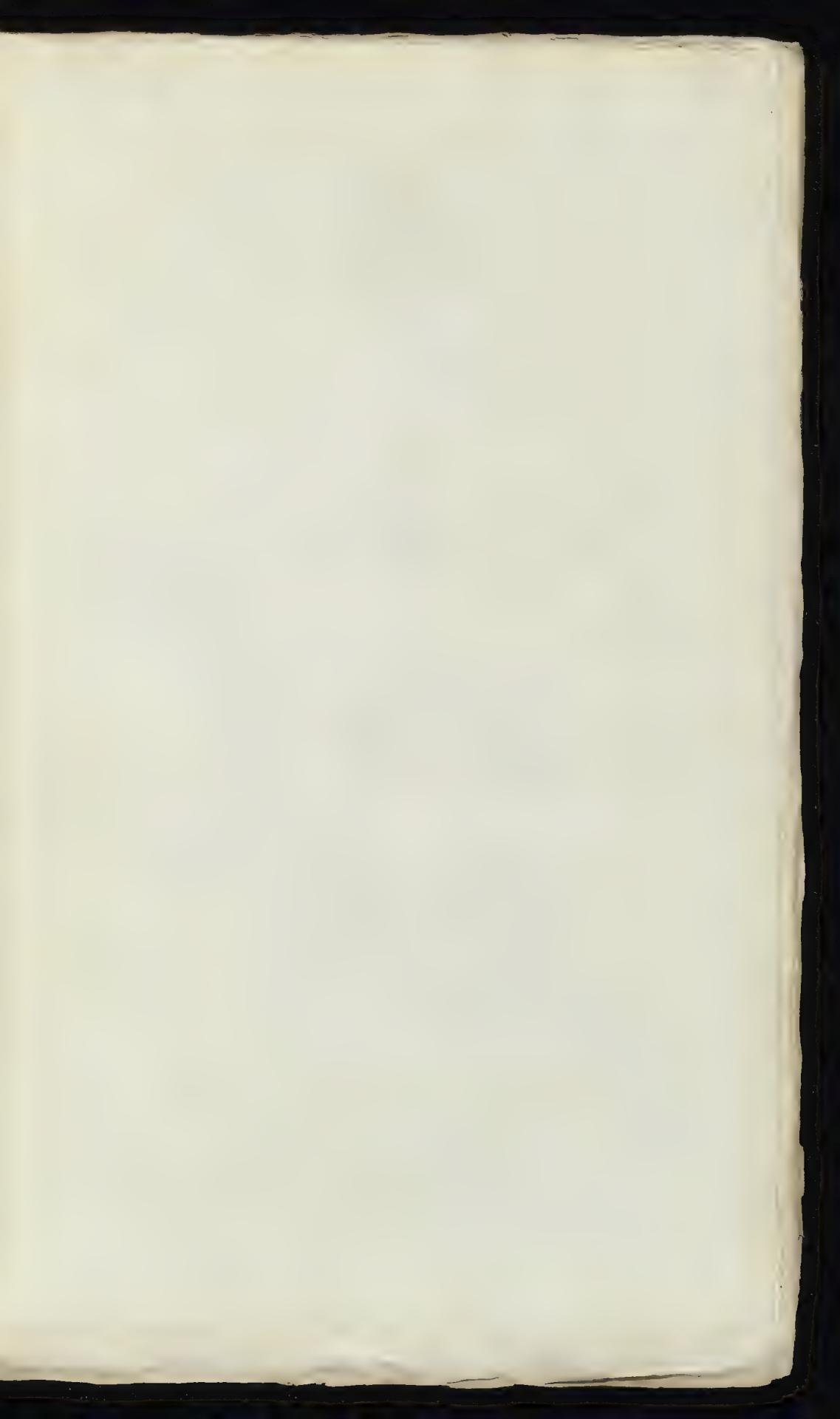
DOWN uneven, feathered, and stiffish, fig. 9.

In the third edition of RAY'S *Syn. fit.*, there is an accurate account given of this plant, which he informs us, he omitted in his *Hjel. Plant.* not being certain at that period, whether it was not a variety of some other plant of the same family. It must be admitted, that many of the plants of this class, very much resemble one another at first sight, whence the student is apt to consider them as a difficult tribe: but however strongly the objection of a similarity of habit may be urged against the *Hypothæris glabra*, whoever has once seen it in blossom, will never mistake it for any other; the flowers being remarkably small for a plant of this kind, not exceeding the size of a silver threepence, while the heads containing the seeds, are altogether as large in proportion to the size of the plant. This similarity of habit, may be one cause why this plant is not often found; but a more particular one, perhaps, is the short time of the flowers expansion, as it does not open till about nine of the clock in the morning, and shuts again about one or two in the afternoon.

HALLER's account of the seeds of this plant is very just: those in the center have foot-stalks, and those in the circumference none; hence this plant unites those genera, whose characters are drawn from this circumstance.

I have found this species of *Hypothæris* in tolerable abundance on Black-heath, particularly under Greenwich Park Wall, on the South-side. By RAY it is mentioned to grow, on the authority of DOODY, in the fields between Kingham and Richmond; by Mr. HUDSON, about Bristol; near NORWICH, by Mr. PITCHFORD; and in SCOTLAND, though rarely, by Mr. LIGHTFOOT.

It delights in a gravelly or sandy soil, and exposed situation; and flowers in June.



CARDUUS MARIANUS. MILK THISTLE.

CARDUUS Linnae. Gen. Pl. SYNGENESIA POLYGAMIA TQUALIS.

Calyx ovatus, imbricatus squamis spinosis. Receptaculum pilosum.

Röhl Syst. Gen. 18. HERBÆ FLORE EXFLOSCULIS FISTULARIBUS COMPOSITO, SIVE CAPITATE.

CARDUUS marianus follis amplexicaulis hastato pinnatifidis spinosis; calycibus aphyllis: spinis cana-

culatis duplicato spinosis. Linn. Syst. Vigetab. p. 605. Sp. Pl. 1153.

SILYBUM nervis foliorum albis. Haller. Hist. n. 181.

CIRSIUM maculatum. Scopoli Fl. Carniol. p. 130.

CARDUUS albis maculis notatus vulgaris. Baubin. Pin. p. 281.

CARDUUS mariae. Gerard. emac. 1150.

CARDUUS mariae vulgaris. Parkinson. 976.

Raii Syrop. p. 195. Common Milk Thistle, or Ladies Thistle.

Hudfon. Fl. Engl. ed. 2. p. 353.

Lightfoot. Fl. Scot. p. 454.

RADIX annua.

FOLIA rectangula supra terram expansa, pedalia, bipeda-
lia et vittata, pinnatifida liruata, nitida, mar-
gine spinosa, superne venis albis reticulatis
picta, subinde vero immaculata, Caulina am-
plexicaulis, patens, suprema recurvata, basi
cauli adpresso.

CAULIS tripedalis, ad orgyalem, ramosus, inferne
crassitrite digiti intermedii, tomentosus, fulca-
tus, superne nudus, striatus.

FLORES solitarii, magni, purpurei.

CALYX: Folia qua calycem componunt varia sunt,
inferiora nempe rotundata, spinis ciliata; inter-
media ut inque ad basin spinis ciliata, acum-
nata, patens, rigida, superne canaliculata,
spina flavefaciente terminata; superiora et interio-
ra lanceolata, inermia, apice purpurea, mar-
ginibus latis, fig. 1, 2, 3.

COROLLÆ infundibuliformes, tubo tenuissimo,
curvato, albo, fig. 4; Limbo erecto, quinque-
fidio, basi subgloboso, nitido, intus mellum
liquorem fundente, laciniis linearibus, aequa-
li. 4.

STAMINA: FILAMENTA quinque, capillaria, bre-
vissima; ANTHÈRE purpurea, in tubum tenu-
issimum coalta, fig. 6.

PISTILLUM: GERMIN ovatum, compressum, album:
STYLUS filiformis, staminibus longior, prope
apicem circulo villorum coronato, dein utrin-
que sulcato et apice bifido, fig. 7.

SEMINA plurima, ovata, subangulata, nitida, nigri-
cantia, pappo obliquo, rigidulo, simplici, ali-
edo coronata.

RECEPTACULUM pilosum.

THE beautiful milk white veins which form an irregular net work on the upper side of the leaves of this species of *Thistle*, joined to its grandeur, render it an object which strikes the attention of most: and where these veins exist, they serve also very well to characterize the plant: the leaves however are frequently wholly green; in which case, it becomes necessary to have recourse to some of its other characters, than which none are more conspicuous than the strong spines which defend the blossom.

The seeds are large, and contain a portion of oil, whence they have sometimes been made use of in emulsions: but they more often serve as food for the Goldfinch, and other granivorous birds.

It is a very common plant on our banks, by the sides of roads, and among rubbish, and flowers in May and June. The variety with green leaves, I have observed on the banks near Kensington Turnpike.

Did it not occupy so much space, its beauty would recommend it as a garden plant.

ROOT annual.

LEAVES next the root, expanded on the ground,
from one to two feet or more in length, sinuate,
and pinnatifid, shining, the edge spinous,
on the upper side painted with white veins,
which form a kind of net work, but sometimes
wholly green; leaves on the stalk partly sur-
rounding the stem, spreading, the uppermost
leaves bent back, the base of each pressed close
to the stalk.

STALK from three to six feet high, branched, at bot-
tom about the thickness of the middle finger,
downy, grooved, at top naked, and finely
channeled.

FLOWERS one on each stalk, large, and purple.

CALYX. The leaves which compose the calyx are
various; the lowermost are of a roundish
shape, and edged with spines; the middle
ones edged with spines towards the bottom,
and running out to a point, spreading, rigid,
hollow on the upper side, and terminating in
a yellowish spine; the upper and innermost
leaves lanceolate, without spines, purple at top,
and notched on the edges, fig. 1, 2, 3.

FLORETS funnel shaped; tube very slender, bent,
and white, fig. 4; Limb erect, divided into
five segments, at bottom somewhat globular,
and secreting a honey liquor within, the
segments linear, and equal in length.

STAMINA: five FILAMENTA, very short, and fine:
ANTHÈRE purple, united into a very slender
tube, fig. 6.

PISTILLUM: GERMIN oval, flattened, and white:
STYLE thread-shaped, longer than the stami-
na, crowned near the top with a circle of
short hairs, from thence grooved on each side,
and bifid at top, fig. 7.

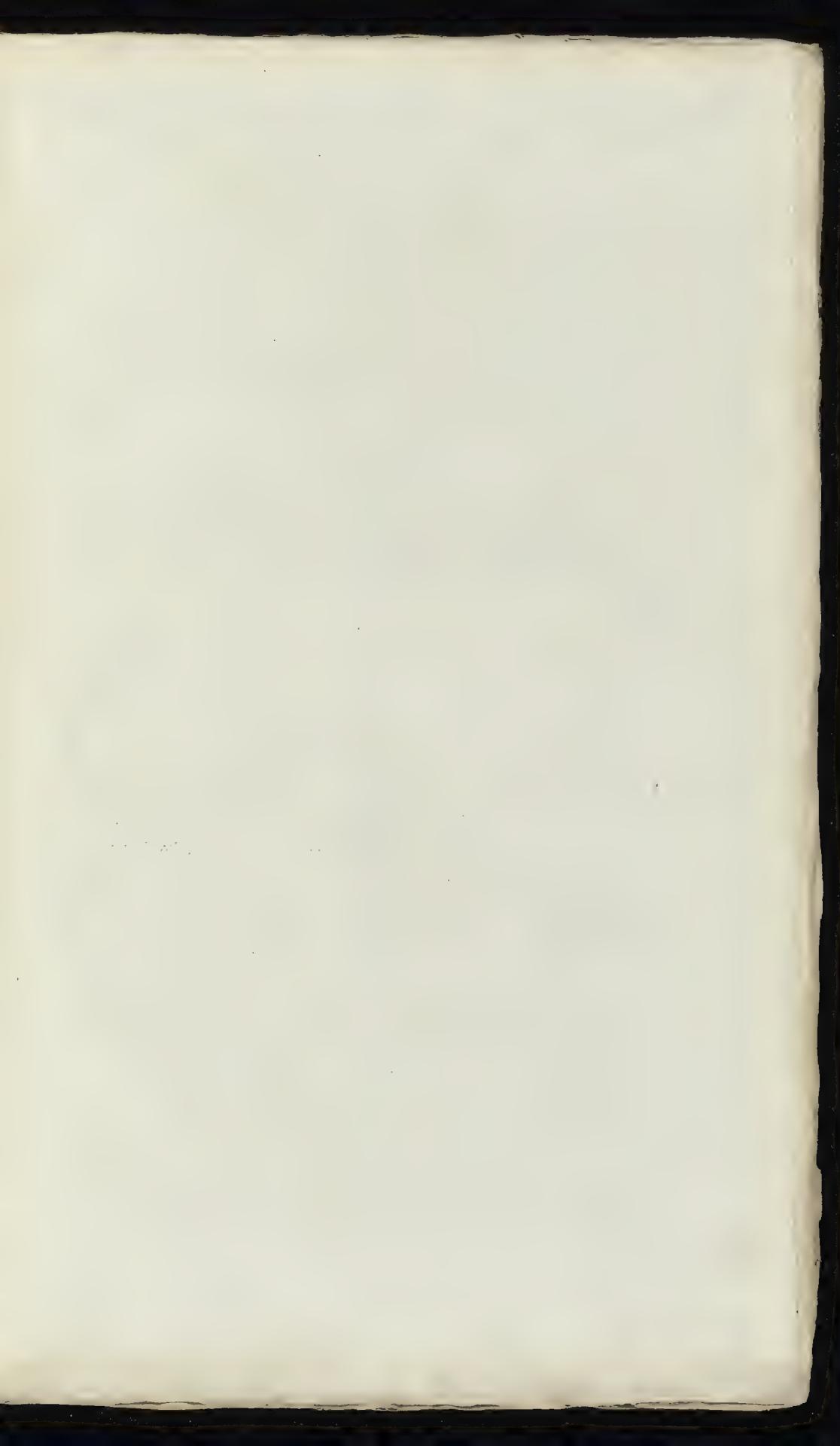
SEEDS numerous, oval, somewhat angular, shining,
of a blackish colour, crowned with a ruffish,
simple, white down, growing obliquely.

RECEPTACLE hairy.



Carduus mormonius

Scrophulariaceae



BIDENS CERNUA. NODDING WATER-HEMP-AGRIMONY.

BIDENS Lin. Gcn. Pl. SYNGENESIA POLYGAMIA EQUALIS. Recept. paleaceum. Pappus aristis erectis
scabris. Cal. imbricatus. Cor. rarius flosculo uno alterne radiante instructus.

Raii. Syn. Gen. 8. HERBÆ FLORE COMPOSITO DISCOIDE SEMINIBUS PAFFO DESTITUTIS
CORYMBIFERÆ DICTÆ.

BIDENS cernua foliis lanceolatis amplexicaulis floribus cernuis seminibus erectis. Lin. Syst. Vegetab.
p. 610.

BIDENS foliis sessilibus ferratis, floribus nutantibus circumvallatis. Haller. Hist. 120.

BIDENS cernua Scopoli Fl. Carniol. p. 176. n. 2.

CANNABINA aquatica folio non diviso. Baub. pin. 321.

VERBESINA pulchriore flore luteo. I. B. II. 1074.

EUPATORIÆ Cannabinæ flaminæ varietas altera Ger. emac. 711.

EUPATORIUM aquaticum foli integro. Parkins. 596.

VERBESINA minima. Dillen. Cat. Gift. 167. et App. 66. Raii. Syn. ed 3. t. 7. f. 2.

Raii. Syn. p. 187. Water-Hemp-Agrimony with an undivided leaf.

Hudson. Fl. Engl. ed. 2. p. 356.

Lightfoot. Fl. Scot. p. 463.

RADIX annua, fibrosa, fibris plurimis, majusculis, alte descendentibus.

CAULIS pedalis, bipedalis, et ultra, erectus, ramosus, hispidulus, purpurascens, rubro punctatus, indigo teres, superne sulcato-striatus, rami oppositi, suberecti.

FOLIA opposta, indivisa, modice connata, ovato-lanceolata, petiata, utrinque lata.

PEDUNCULI striati.

FLORES e luteo viridescentes, demum cernui, plerumque radiati.

CALYX communis, foliaceus, foliolis circiter septem, lato, lanceolatis, ferrulatis, nervosis, reflexis, corollis longioribus.

COROLLA: PETALA exteriora decem circiter, oblongo-ovata, acutifusca, nitida, e flavo-viridescencia, apice inflexa, lineis parallelis nigricantibus praedita, examplo margini; FLOSCULI in disco numerosi, æquales, hermaphroditi, infundibuliformes, flavi; LIMBUS cylindrus, aequalis, longitudine limbi seu paulo longior, Limbus campanula latu, quinqquedentatus, dentibus subreflexis. fig. 1. 2.

STAMINA: FILAMENTA quinque, capillaria; ANTHÈRE nigricantes, in tubum laxum coiliatae. fig. 3.

PISTILLUM: GERMIN angularum, subconicum, albidum, apice truncatum, superne e quatuor angulis, aristis quatuor longitudine ferè flocculi instructum. fig. 6.

SEmen olivaceo-nigrum, obverse conicum, tetragonum, angulis aristisque retrofsum scabro hæmosis. fig. 7.

RECEPTACULUM paleaceum Palis struttura petalorum, lanceolatis, longitudine flosculorum. fig. 5.

THE Genus *Bidens* of LINNÆUS is chiefly characteriz'd by the structure of its seeds, which according to its name shou'd be furnished with two teeth or awns, to neither of our English species does this name however well accord, as the one has generally three and the other four; the awns are furnish'd with small sharp hooks, (a curious object for the microscope) by means of which they often stick to ones cloths, and Mr. LIGHTFOOT mentions that they have been known sometimes to destroy the *Cyprinus auratus* or Gold Fish by adhering to their Gills and Jaws.

We have two species of *Bidens* common in this country viz the *tripartita* and *cernua*, the *tripartita* is common on the edge of almost every pond, the *cernua* delights rather to grow in the water itself, in the ditches about St. Georges Fields, in the pond adjoining Hornsey Wood, and in similar situations about London it is very frequently met with, it flowers in the month of September, a month later than the *tripartita*.

Like all other plants it is subject to vary, being sometimes found without its exterior petals, and sometimes in very dry seasons when the Sun has exhale the water from the pond it has grown in, it has been found so dwarfish as not to exceed two or three inches in height, a plant of this kind is figured on the plate, fig. 8, DILLENIUS finding it in this state, described and figured it is in his edition of RAYS Synopsis, as a distinct species and LINNÆUS probably relying on his authority adopted it as such in his Species plantarum but HALLER who had seen the Plant very justly confiders it as only a variety and Mr. LIGHTFOOT concurs with him in opinion, Mr. HUDSON with his usual inaccuracy in the second edition of his Flora anglica gives it as a variety of the *tripartita*.

The flowers of this species have a strong and not a very disagreeable smell, hence they promise to possess some medicinal powers, it is said by LINNÆUS, to dye yellow, but not so powerfully as the *tripartita*.

ROOT annual, and fibrous, the fibres numerous, large, branched, running deep.

STALK from one to two feet high or more, upright, branched, somewhat hispid, purplish, dotted with red, below round, above striated, the branches opposite and nearly upright.

LEAVES opposite, undivided, moderately connate, ovato-lanceolate, spreading, serrated, and smooth on both sides.

FLOWER-STALKS striated.

FLOWERS of a yellowish green colour, finally drooping, generally radiated.

CALYX common to all the florets leafy, consisting of about seven leaves, which are of a shape betwixt linear and lanceolate, finely sawed at the edge, rib'd, turning back and longer than the corolla.

COROLLA: the exterior PETALS about ten in number, of an oblong oval shape, somewhat pointed, and bending in at the top, of a yellowish green colour, shining and marked with blackish parallel lines except the margin, the FLOWERS in the center numerous, æqual, hermaphrodite, funnel shaped and of a yellow colour; the Tube cylindrical the length of the limb or a little longer, the Limb bell-shaped, having five teeth which turn somewhat back. fig. 1. 2.

STAMINA: five FILAMENTS, very fine; ANTHÈRE blackish, forming a loose tube. fig. 3.

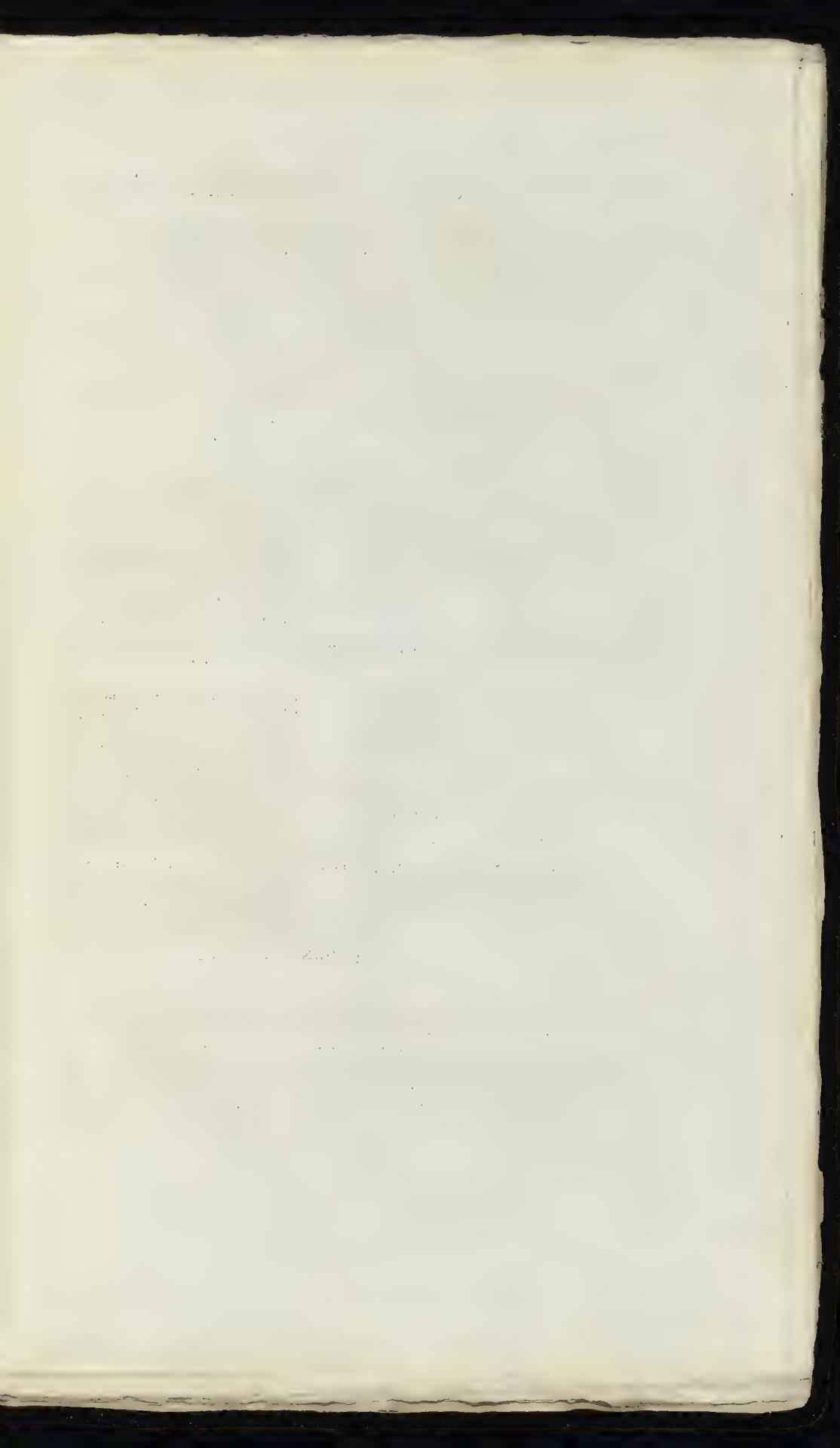
PISTILLUM: GERMIN angular, somewhat conical, whitish, cut off at top, furnished above with four beards or awns proceeding from the four angles almost the length of the flower and befit with little hooks bending backward. fig. 6.

SEED of a dark olive colour, inversely conical, four cornered, the corners and beards beset with little hooks bending backward. fig. 7.

RECEPTACLE chaffy or beset with numerous lanceolate leaves having the structure of the petals and being as long as the florets. fig. 5.



Bidens cornuta.



INULA DYSENTERICA. COMMON FLEABANE.

INULA *Linn. Gen. Pl. Syngenesia Polyg. Superfl.*

Recept. nudum. Pappus simplex. Antheræ basi in duas setas definentes.

*Raii. Syn. Gen. 7. HERBÆ FLORÉ COMPOSITO, SEMINE PAPPOSO NON LACTESCENTES,
FLORE DISCOIDE.*

INULA *dysenterica* foliis amplexicaulibus cordato-oblongis, caule villoso paniculato, squamis calycinis
fetaceis. *Lin. Syst. Vegetab. p. 637. Lin. Spec. pl. p. 1237. Fl. Suecic. n. 557.*

ASTER foliis amplexicaulibus, undulatis, subtus tomentosis. *Haller. bijt. n. 79.*

ASTER *Dysentericus*. *Scopoli. Fl. Carn. n. 1079.*

CONYZA media afteris flore luteo vel tertio dioscoridis. *Baub, pin. 265.*

CONYZA media Matthioli, flore magno luteo, humidis locis proveniens. *J. B. II. 1050.*

CONYZA media *Ger. emac. 482. HERBA DYSENTERICA. Cat. Altdorf. Raii. Syn. p. 174. Middle Fleabane.
Hudson. Fl. Angl. p. 368.
Oeder. Fl. Dan. t. 410.*

RADIX perennis, repens, albida, crassitie pennæ anserinæ, majusculis fibris donata.

CAULIS pedalis ad bipedalem, erectus, ramosissimus, teres, firmus, solidus, lanuginosus.

FOLIA alterna, conferta, patentia, amplexicaulia, oblonga, obscure ferrata, inferne tomentosa, superne subhirsuta, obscure viridia.

RAMI plurimi, cauli similes, erecti, senioribus altius proiecitis.

FLORES flavi, procul conspicui, numerosi, subcorymbosi.

CALYX: communis, imbricatus, foliolis laxis, sublineariis, hirsutis.

COROLLA composita, radiata, *Corollula* hermaphrodite, sequalis, numerosissimæ in disco. *Feminae ligulatæ, numerosæ, confertaæ in radio. Propria Hermaphroditi infundibuliformis, limbo quinquefido, ericifuculo, fig. 7. Femina ligulata, sublinearis, tridentata. fig. 1.*

STAMINA Hermaphroditi: FILAMENTA quinque, filiformia, brevia. ANTERA cylindrica, composta ex minoribus quinque linearibus, coatis: singulis inferne definentibus in fetas duas rectas longitudine filamentorum.

PISTILLUM Hermaphroditi: GERMIN oblongum, hispidulum; STYLUS filiformis, longitudine staminum; STIGMA bifidum, reflexum fig. 8. Feminæ: GERMIN ut in Hermaphrodito; fig. 3. STYLUS longitudine tubi, STIGMA bifidum. fig. 2.

PAPPUS pilosus. fig. 4. 5. 6.

ROOT perennial, creeping, whitish, the thickness of a goose quill, furnished with largish fibres.

STALK from one to two feet high, upright, very much branched, round, firm, solid, with a woolly surface.

LEAVES alternate, set thickly together, spreading, embracing the stalk, oblong, obscurely serrated, underneath woolly, above somewhat hirsute, of a dull green colour.

BRANCHES numerous, like the stalk, upright, the latest growing to the greatest height.

FLOWERS yellow, conspicuous at a distance, numerous, and forming a kind of corymbus.

CALYX: common to many florets, the leaves placed one over another, somewhat linear and hirsute.

COROLLA compound and radiate, hermaphrodite. Florets equal and exceedingly numerous in the center. Female ligulate, numerous, growing close together, in the circumference. Each Hermaphrodite flower funnel shaped, the limb divided into five segments which are nearly upright, fig. 7. Female ligulate, somewhat linear, terminating in three teeth, fig. 1.

STAMINA in the Hermaphrodite flower; five FILAMENTA thread-shaped and short. ANTERÆ forming a cylindrical tube, composed of five smaller linear ones united, each terminating below in two strait sets or threads the length of the filaments.

PISTILLUM of the Hermaphrodite florets: GERMIN oblong and somewhat hispid; STYLE thread-shaped, the length of the stamna; STIGMA bifid and turning back, fig. 8. of the female Florets; GERMIN as in the Hermaphrodite ones, fig. 3. STYLE the length of the tube; STIGMA bifid.

DOWN hairy. fig. 4, 5, 6.

AT the close of the year this plant contributes not a little to enliven and beautify the sides of our moist ditches, to the Farmer it however affords no very pleasing spectacle when it overruns as it frequently does large tracts of Land and gives it a barren uncultivated appearance.

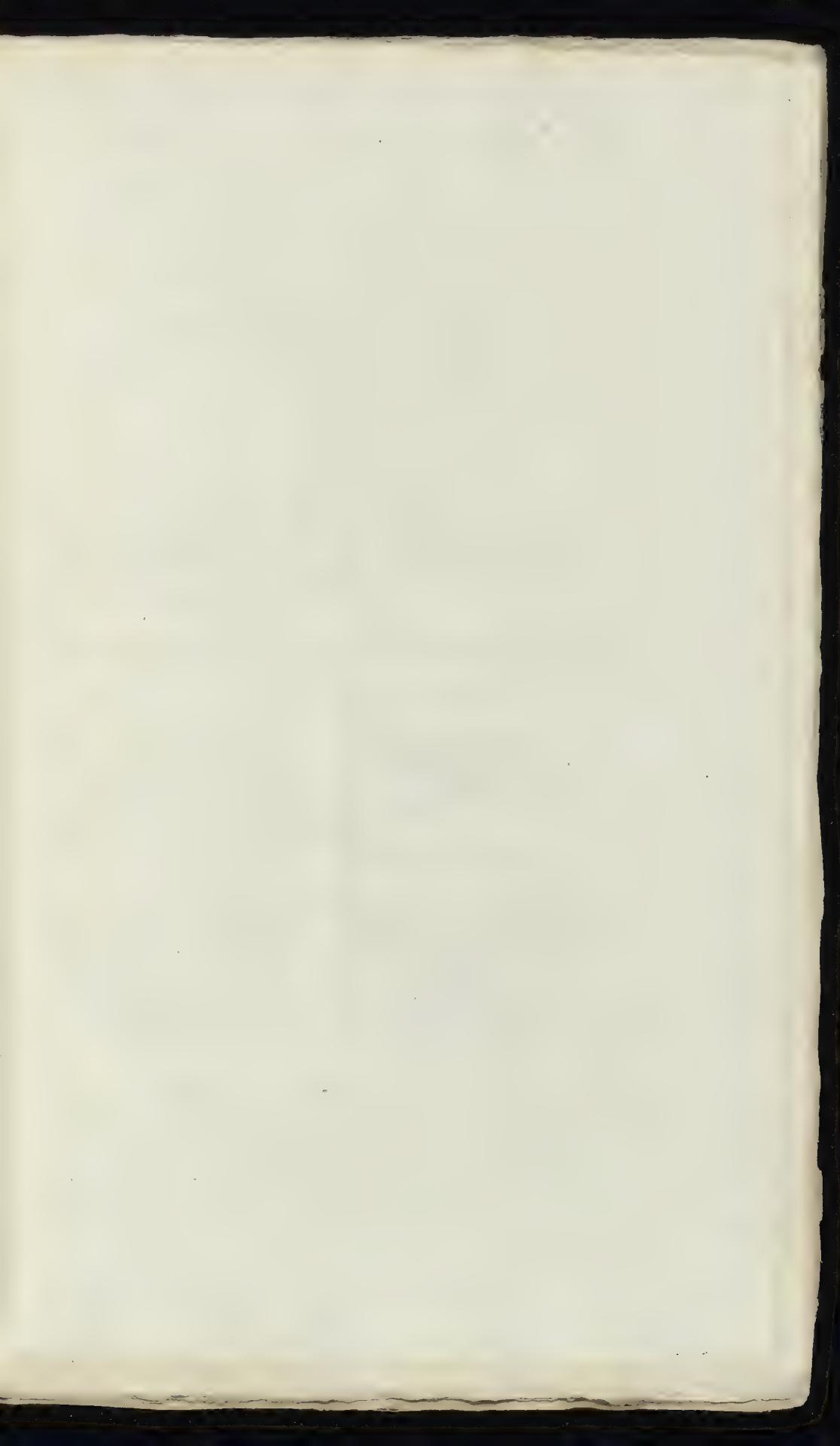
LINNAEUS in his *Flora Suecica* mentions his having been informed by General Keit that the Ruffians in their expedition against the Persians were cured of the Bloody Flux by means of this plant, whence it has probably obtained its name of *dysenterica*, had it possessed any efficacy in this disease superior to the medicines in general use it would most probably have been retain'd in the present practice. RAY has observed that the leaves when bruised smelt like Soap, RUTTY informs us that the juice is saltish and warms the mouth a little, that the decoction is somewhat acrid in the throat, at the same time astringent and turning green with vitriol of Iron, that the infusion is somewhat astringent, very bitter in the throat, and turning black with vitriol of Iron.

Cattle in general dislike it.



Indigofera dysenterica

Jameson Smith



INULA PULICARIA. SMALL FLEABANE.

INULA L'v. Gen. Phyt. SYNGENESIA POLYGAMIA SUPERFLUA, Recept. nudum. Pappus simplex.

Antheræ basi in setas duas desinentes.

R.M. Son. Gen. 7. HERBÆ FLORE COMPOSITO, SEMINE PAPPOSO NON LACTESCENTES,
FLORE DISCOIDE.

INULA Pulicaria foliis amplexicaulibus undulatis, caule prostrato, floribus subglobosis. Lin. Sp. Pl.

p. 1238.

ASTER foliis amplexicaulibus, undulatis, hirsutis, radiis brevissimis. Haller. Hist. n. 80.

ASTER Pulicarius. Scopoli Fl. Carn. n. 1080.

CONYZA minor flore globoſo. Bauhin pin. 266.

CONYZA minima. Gerard emac. 482. Rali. Syn. p. 174. small Fleabane.

Hudfon. Fl. Angl. p. 369.

Oeder. Fl. Dan. icon. 613.

RADIX annua, fibrosa, albida, articulata, plerumque curvata.

CAULIS spathiaclus, raro ultra pedalem, nobiscum plerumque erectus, ramosissimus, teres, purpureoſcens, pubescens, subflexuofus; Rami alterni, cauli similes.

FOLIA alterna, oblongo-lanceolata, amplexicaulia, hirsutula, undulata, tortuosa.

FLORES parvi, numerosi, hemisphaerici, lutei, summitatibus ramulorum infidentes, pedunculati; post natu ſupra primos eminentes.

CALYX communis imbricatus, squamæ numerosæ, inaequales, sublineares, cinctæ, tomentosæ.

COROLLA compoſita: Corollæ Hermaphrodite aquæ, numerosissima in dico, limbo quinquefido, erecto, extus minutissime glanduloso, fig. 5; Feminae ligulatae, numerosæ, conformatæ in radio; carinæ ad lentem scabriuſulæ, limbo brevijimo, plerumque tridentato, fig. 1.

STAMINA: FILAMENTA quinque, capillaria; ANTHÈRE flave, longitudine corollæ, singulis fetis duabus tentaculis ad basin instructæ, fig. 9, 10, 11.

PISTILLUM: GERMIN Hermaphroditæ et Feminae oblongum, teres, album, pilis rigidulis subappressis hirsutum. fig. 2, 4. STYLUS corollæ longior; STIGMA bifidum, laciniis reflexis. fig. 3, 6.

SEMENT oblongum, nigricans, hirsipulum, teres, pappo simplici, rigidulo, fragili, longitudine feminis coronatum. fig. 8.

RECEPTACULUM nudum, punctis prominulis fimbriatum. fig. 7.

ROOT annual, fibrous, whitish, jointed, generally crooked.

STALK from seven inches to a foot in height, seldom more, with us generally upright, very much branched, round, purplish, downy, somewhat crooked; Branches alternate, and like the stalk.

LEAVES alternate, oblong, and lanceolate, embracing the stalk, slightly hairy, waved at the edges and twisted.

FLOWERS small, numerous, hemispherical and yellow, fitting on the tops of the branches and having four stalks, the last blown standing considerably above the others.

CALYX common to many flowers, scales lying one over another, numerous, almost linear, upright, equal and woolly.

COROLLA compound, Hermaphrodite Florets equal, exceedingly numerous in the center, the limb divided into five upright segments, and externally very minutely glandular, fig. 5. Female Florets in the circumference flat at the extremity, numerous, close together, the keel or midrib underneath a little rough, the limb very short, usually terminating in three teeth, fig. 1.

STAMINA: five FILAMENTS, very fine; ANTHÈRE yellow, the length of the corolla, each furnished at bottom with two slender setæ or bristles. fig. 9, 10, 11.

PISTILLUM: GERMIN both in the Hermaphrodite and Female Florets oblong, round, white, hirsute with stiffish hairs which are somewhat prick'd to it; fig. 2, 4; STYLE longer than the corolla; STIGMA bifid, the segments turning back. fig. 3, 6.

SEED oblong, blackish, round and a little hirsipid, crown'd with a simple, stiffish, brittle down, the length of the seed. fig. 8.

RECEPTACLE naked, roughish from little prominent points. fig. 7.

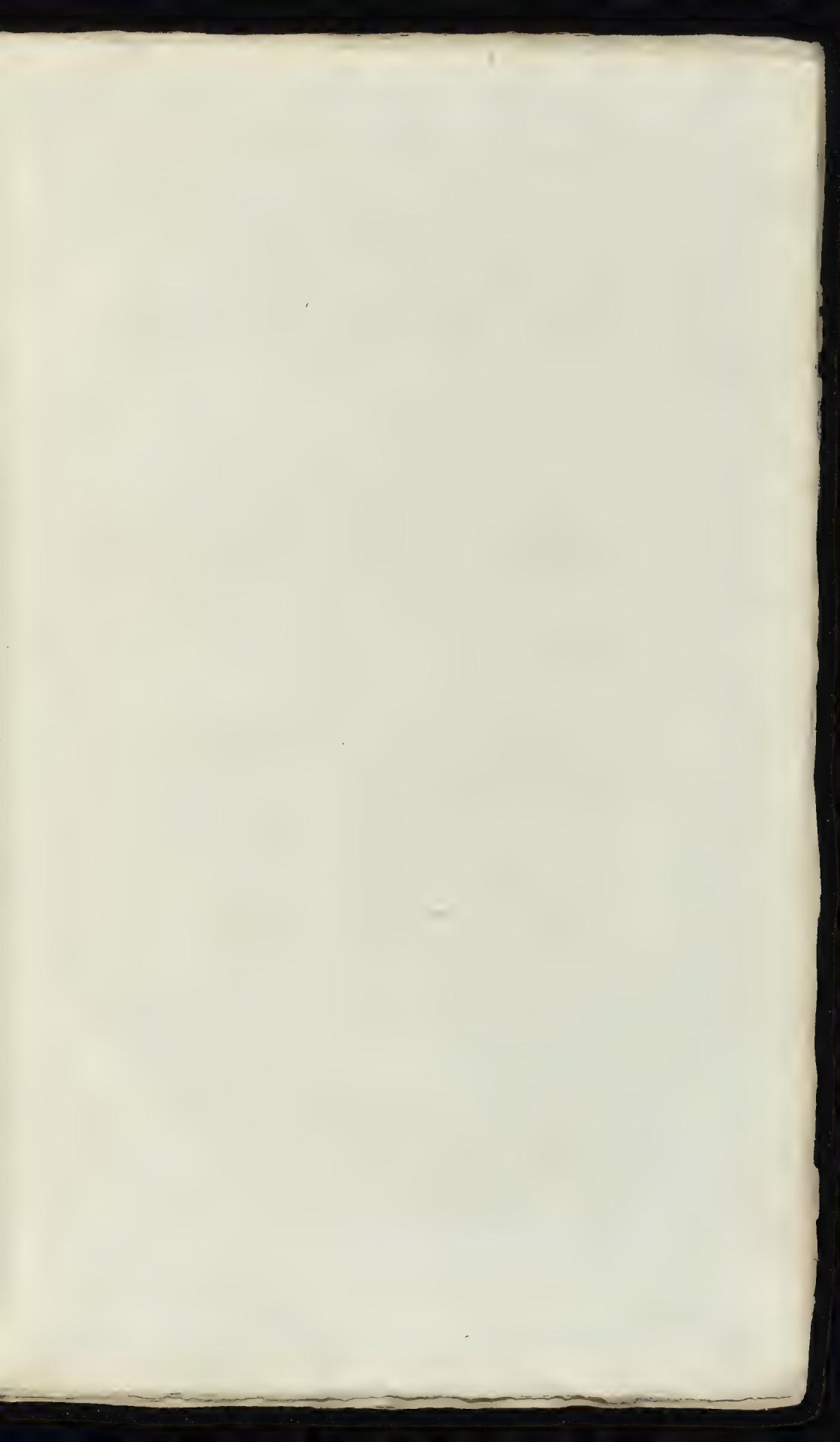
LINNÆUS in his Genera Plantarum informs us that the *Inula* is principally characterized by having two small Setæ or Bristles proceeding from the base of each *Anthera*, and that it is by this circumstance in an especial manner distinguished from the Genus *Aster*, yet notwithstanding this, both Haller and Scopoli have thought proper to join it with that genus; although a peculiar character, it might perhaps be considered by them as too minute to found a Genus on, in this species it requires a good eye and some small dexterity to discover them, yet they are sufficiently visible; independent of them however, there is on the face of the two genera such an evident dissimilarity that a student would never expect to find them arranged together.

This species is not so common as the *dysenterica*, nor is it like that a perennial.—It generally grows in places overflowed in the winter, on the borders of Ponds particularly in a stiff soil and flowers in September.



Synlis Pulerana

Lamaceae



VIOLA PALUSTRIS. BOG VIOLET.

VIOLA Lin. Gen. Pl. SYNGENESIA MONOGAMIA.

Cal. 5-phyllo. Cor. 5-petala, irregularis, postice cornuta. Caps. supera 3-valvis, 1-locularis.

Raii Syn. Gen. 24. HERBÆ PENTAPETALÆ VASCULIFERÆ.

VIOLA acaulis, foliis reniformibus. Lin. Syb. Vegetab. p. 668. Sp. Pl. p. 1324. Fl. Suecic. n. 786. Haller. bij. n. 560.

VIOLA palustris rotundifolia glabra. Moris. bij. 2. p. 475. f. 5. t. 35. f. 5. Plot. Oz. 144. t. 9. f. 2. Raii Syn. p. 364.

Hudson Fl. Angl. ed. 2. p. 379.

Lightfoot Fl. Scot. p. 506.

Oeder Fl. Dan. t 83.

RADIX	perennis, repens, albida, dentata, hinc inde gemmis albis instructa, plurimis fibrillis ramosis capillata.	ROOT	perennial, creeping, whitish, toothed, here and there furnished with white buds, and abundantly supplied with branched fibres.
STIPULÆ	radicales plurimæ, ovato-acutæ, ferrulatae.	STIPULÆ	next the root numerous, ovate, pointed, and slightly sawed.
PETIOLÆ	glabri, semicylindracei, interne concavi, ad latem vix punctis minutissimis purpureis notati.	LEAF-STALKS	smooth, semicylindrical, internally hollow, view'd with a glass appearing to be finely dotted with purple.
FOLIA	subreniformia, tenera, nitida, crenata, venosa, subitus haud infrequenter purpureo-scutellata.	LEAVES	somewhat kidney-shaped, tender, shining, notched, veiny, on the under side frequently purplish.
PEDUNCULÆ	radicales, uniflori, petiolis duplo longiori, subtetragoni.	FLOWER-STALKS	springing from the root, twice the length of the leaf-stalks, somewhat quadrangular.
BRACTEÆ	duo, lanceolatae, oppositæ, ad basim ferrulatae, infra medium pedunculi positæ.	FLORAL-LEAVES	two, lanceolate, opposite, finely sawed at the base, and placed below the middle of the flower-stalk.
FLORES	parvi, pallide purpurei.	FLOWERS	small, of a pale purple colour.
CALYX:	PERIANTHUM parvum, petalis duobus superioribus fere occultum, pentaphyllum, foliolis oblongis, obtusis, superioribus apice recurvis. fig. 1.	CALYX	: PERIANTHUM, small and almost hid by the two uppermost petals, composed of five leaves, which are oblong, obtuse, the uppermost turn'd back at top. fig. 1.
COROLLA:	PETALA quinque, pallide purpurea, duabus superioribus deorum flexis, longitudine fere calcaris neclarum, petala laterali subtortuosa, flua unica simplici notata, bari barbata, fig. 2. infima venis purpureis ramosis pulchre picta, in calcar breve obtusum posuisse excurrente. fig. 3.	COROLLA	five PETALS, of a pale purple colour, the two uppermost bent back, almost the length of the spur of the nectary, the tide petals somewhat twisted, marked with one simple streak, and bearded at the bottom, the lowest most beautifully painted with branched veins of a purple or reddish colour, running out backward into a short blunt spur. fig. 2. 3.
STAMINA:	FILAMENTA quinque brevissima; ANTHERA bilocularis, in tubum vix coalescentes, membrana aurantiaca terminatae. fig. 4. 4 <i>vii</i> .	STAMINA	: five FILAMENTS very short, ANTHERA bilocular, scarcely united in a tube, terminated by an orange colour'd membrane. fig. 4. magnified.
PISTILLUM:	GERMEN subovatum; STYLUS basi curvatus, superne incrassatus, antheris longior; STIGMA nude oculo bifidum apparel; fig. 5. armato sicut ad. fig. 6.	PISTILLUM	: GERMEN somewhat ovate; STYLE crooked at bottom, thicken'd at top, longer than the anther; STIGMA to the naked eye bifid. fig. 4. when magnified appearing as at fig. 6.
PERICARPIUM:	CAPSULA oblonga, trigona, trivalvis.	SEED-VESSEL	an oblong, three-corner'd CAPSULE of three valves.
SEMINA	plurima, subrotunda.	SEEDS	numerous and roundish.

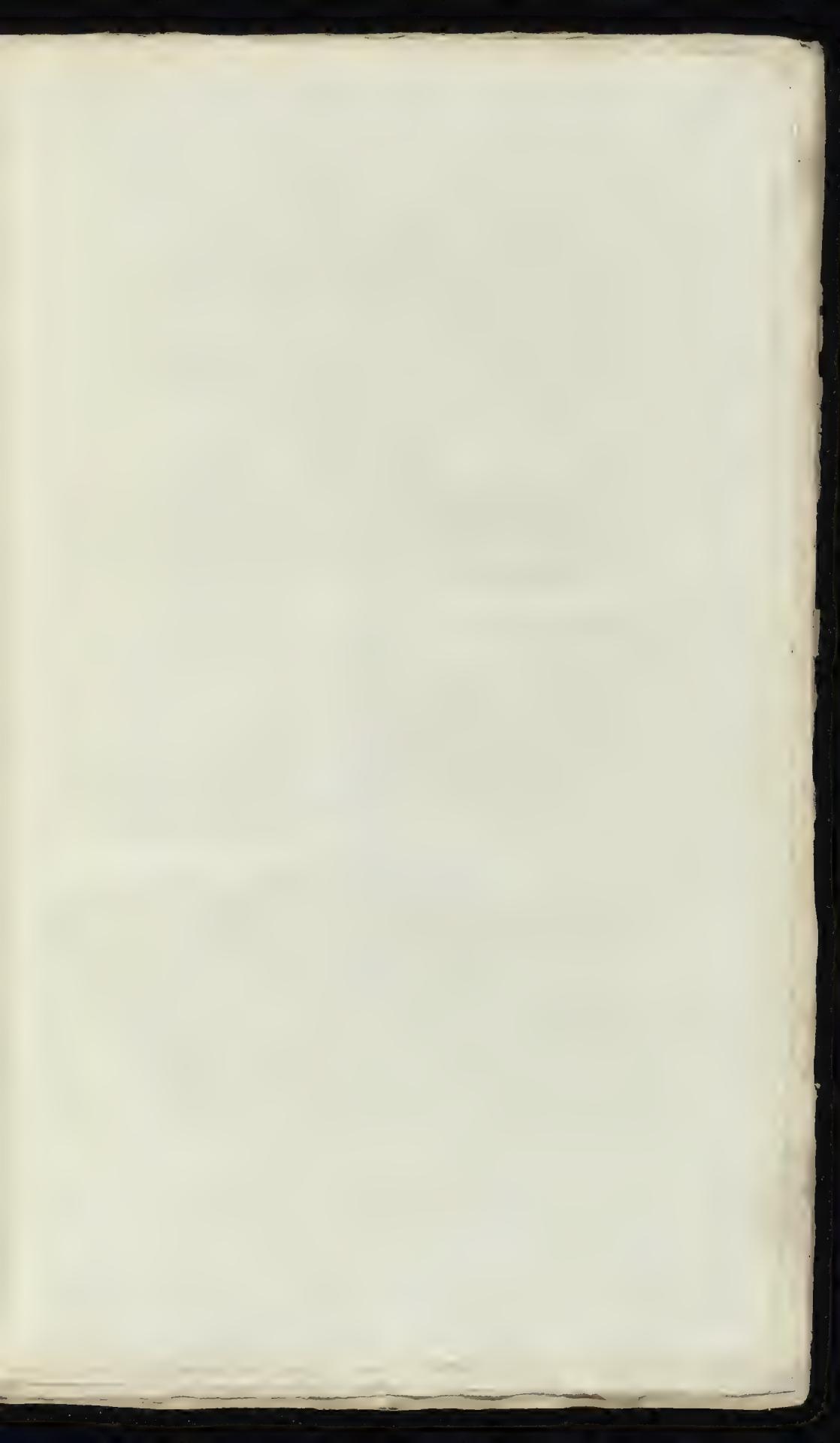
IT is in Bogs only that we find the *Viola palustris*, the least showy of all our English Violets, and in such situations it generally abounds, on the boggy part of Shirley Common near Croydon, it may be found in flower in April and May.

It is diffi. guished from the other species by the peculiarity of its place of growth, the greater roundness of its leaves, the patenes of its flowers, and the extraordinary form of its stigma, vid. pl. fig. 6. In its economy it resembles the *Viola odorata*, *birta*, &c. producing ripe seeds without perfect blossoms, and that in a greater quantity and for a longer continuance than any of the others.

A Violet with red striped blossoms is mentioned by PARKINSON, under the name of *Viola rubra striata Eboracensis* which is considered by Mr. RAY and later writers, as only a variety of the present plant.

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ORCHIS MORIO. MEADOW ORCHIS.

ORCHIS Linn. Gen. Pl. GYNANDRIA DIANDRIA. *Neptunium corniforme* pone florem.

Raii Syn. Gen. 26 HERBÆ RADICE BULBOSA PRÆDITÆ.

ORCHIS *Morio* bulbis indivisis, nectarii labio quadrifido crenulato: cornu obtuso adscendente, petalis obtusis convivientibus. Lin. Syst. Vegetab. p. 674. Sp. Pl. p. 1333. Fl. Suec. II. 794.

ORCHIS radicibus subrotundis, petalis galere lineatis, labello trifido crenato, medio segmento emarginato. Haller. Hist. n. 1281. t. 33.

ORCHIS *Morio*. Scopoli Fl. Carniol. n. 1110.

ORCHIS *morio* femina. Baubin. pin. 82. Parkinson. 1347.

CYNOSORCHIS *morio* femina. Ger. emiac. 2c8. Raii Syn. 377. The Female Fool-flower.

Hudson, Fl. Angl. ed. 2. p. 383. Lightfoot Fl. Scot. p. 514. Oeder. Fl. Dan. Tab. 253

RADIX: Bulbi duo, subrotundi, magnitudine nucis avellanae aut etiam mochatae, superne ut in plerique hujus generis fibris majusculis patentibus infructi, odore subhircino.	ROOT: two roundish <i>Bulbs</i> of the size of a hazel nut or even of a nutmeg, above as in most of the plants of this tribe furnished with large spreading fibres, smelling strong and rank.
SCAPUS spithameus, ad pedalem et ultra, erectus, subholius.	STALK from six or seven inches to a foot or more in height, upright and leafy.
FOLIA amplexicaulia, lanceolata, lineata, superne nitida, inferne subargentea, ima reflexa, et quodammodo intorta.	LEAVES embracing the stalk, lanceolate, marked with lines, shining on the upper side, underneath silvery, the bottom ones for the most part turning back and variously contorted.
FLORES pauciores, sex five octo, raro ultra duodecim, purpurei, laxè dispositi.	FLOWERS few in number, from six to eight, seldom more than twelve, of a purple colour, sitting loosely on the stalk.
BRACTÆA longitudine fere germinis, purpurascens, incumbens.	BRACTÆA or Floral leaf, almost the length of the germen, purplish and incumbent.
COROLLA: PETALA quinque, omnibus in galeam convenientibus, quorum duo exteriora perfectim lineis quinque parallelis, viridibus notantur.	COROLLA: five PETALS, all of which close together and form the helmet, of these the two outermost are strikingly marked with green parallel lines.
LABELLUM amplum, purpureum, medio albidum, punctatum, trilobum, lobis lateraliibus deflectis, medio breviore emarginato, omnibus ferrulatis. Calcar longitudine fere germinis, submarginatum, fursum tendens.	LIP large, purple, whitish in the middle and dotted, having three lobes, of which the two side ones turn downward, the middle one shortest with a notch in it, all of them finely sawed. Spur nearly the length of the germen, slightly notched at top and tending upward.
STAMINA: FILAMENTA duo; ANTERÆ virides, clavatae, bilamellatae. fig. 2, 3, 5.	STAMINA: two FILAMENTS; ANTERÆ green, club-shaped, splitting into two lamellæ. fig. 2, 3, 5.

Most of the plants of the Orchis tribe as already has been observed have bulbous roots which are yearly renewed, they do not however increase in that abundant manner which many other bulbous-rooted plants are known to do; as yet I have not heard of any one that has raised them from seed, nor can I boast a fact of that kind myself, yet frequent observation almost confirms me in the opinion that they must be propagated from seed, if this be not admitted, how shall we account for so many young plants being found together as are frequently observed? I have myself seen from twenty to thirty young plants of the Bee Orchis growing within a foot of each other, and it is well-known they seldom or never increase by the root; accurate and repeated observation in natural history is capable of producing much information, and will it is hoped ere long satisfactorily elucidate this doubtful subject.

Some writers on the Materia Medica have pronounce'd this to be the true plant which produces the oriental Salep, while others suppose it to be some other species, there is one circumstance which makes it impossible that this species should produce all the Salep many of the roots in that drug appear palmated like those of the *Orchis Maculata*, whereas had they been the produce of the *Orchis Morio* they would all have appeared round, it would therefore appear most probable that the Salep is formed from a number of the different species mixed together; there seems to be no propriety in confining it to this species alone, the *maculata*, the *maculata*, the *bifolia*, and some others have as large or larger roots than this, and their quality appears to be the same.

The *Orchis Morio* grows in meadows that are moderately dry, such as the Cowslip is usually found in, and sometimes they are so numerous as to empurple the spot they grow on.

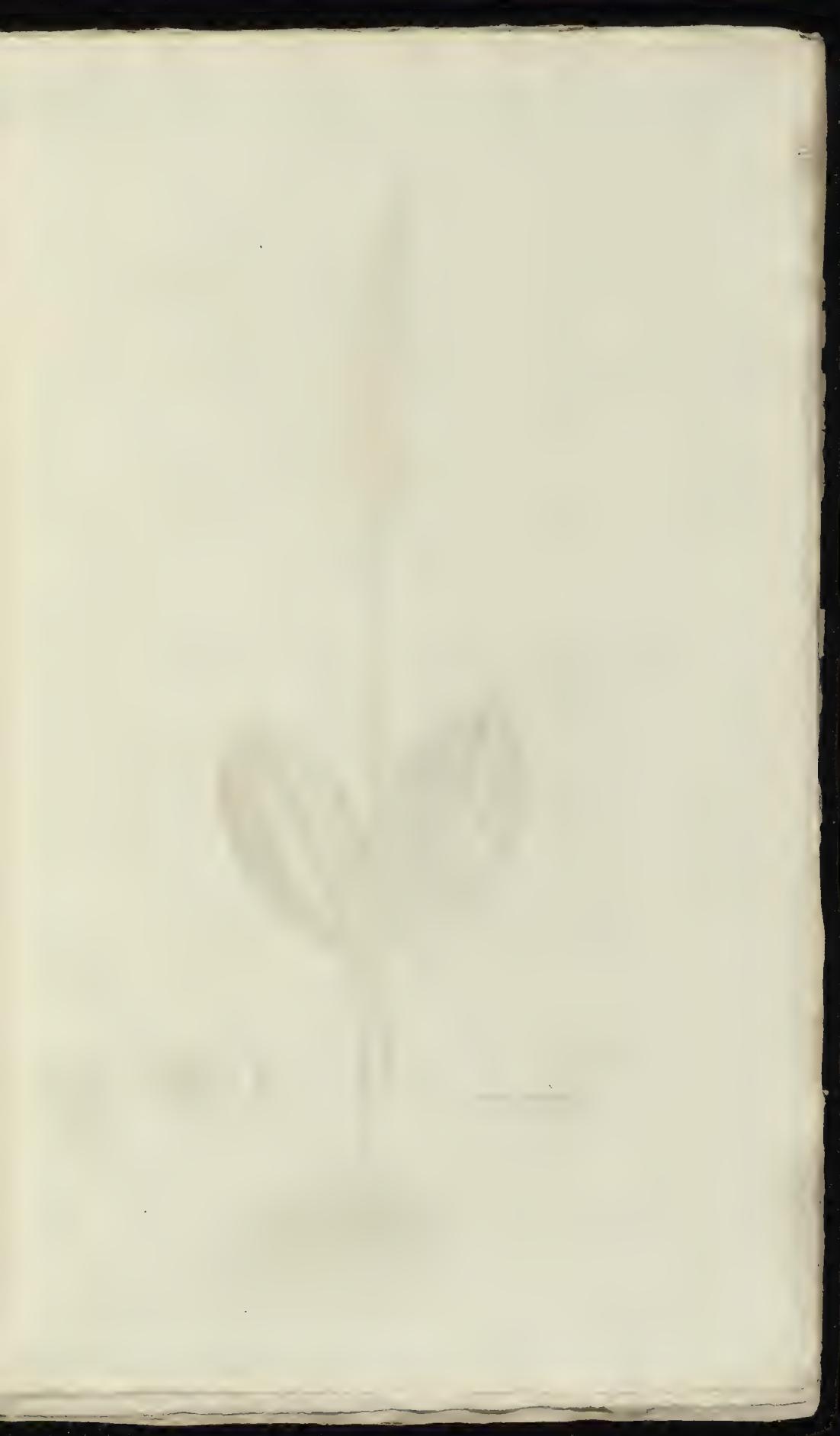
It assumes all the changes of colour from a deep purple to a white, indeed there is no Orchis more variable in this respect, but in all its varieties it retains more or less strongly the green lines on its side petals which obviously distinguish it from all our other Orchis's.

It flowers in May and June.



Ophrys Mariei

Sturm. Sibp.





OPHRY S O V A T A. T W A Y B L A D E.

OPHRY S *Lin. Gen. Pl. GYNANDRIA DIANDRIA.*

Nectarium subcarinatum.

Raii Syn. Gen. 29. HERBÆ RADICE BULBOSEA PRÆDITÆ.

OPHRY S *ovata* bulbo fibroso, caule bifolio, foliis ovatis, nectarii labio bifido. *Lin. Syst. Vegetab. p. 667.*
Sp. Pl. 1342. F. Suec. n. 808.

EPIPACTIS foliis binis ovatis, labello bifido. *Haller. hist. 1291. t. 37.*

OPHRY S *ovata*, *Baubin. Pin. 87. Ger. emac. 402.*

BIFOLIUM *sylvestre vulgare Parkins. 504. Raii Syn. 385. Common Twayblade.*

Fl. Dan. t. 137. Hudfon Fl. Angl. ed. 2. p. 388. Lightfoot Fl. Scot. p. 523.

RADIX	perennis, fibrosa, fibris plurimis, teretibus, cylindricis, contortis.	* ROOT	perennial, fibrous, fibres numerous, round, cylindrical, matted together.
SCAPUS	pedalis et ultra, solidus, teres, villosus, subvicius, foliolis paucis perbrevis, alternis, acuminate, vaginantibus infructus.	STALK	a foot or more in height, solid, round, villos, slightly viciid, and furnished with very short, alternate, pointed sheathing leaves.
FOLIA	bina, prope terram, inferiore basi sua superoris basin ambiente, ovata, mucronata, quinquernea.	LEAVES	growing in pairs, near the ground, the lower one by its base surrounding the base of the upper one, ovate, pointed, with five ribs.
FLORES	herbacei, spicati, laxè et distincte insidentes.	FLOWERS	of a greenish colour, growing in a spike, fitting loosely and distinctly.
SPICA	prælonga, angusta.	SPIKE	very long and narrow.
Fig. 1. ad 12.	exhibitent partes fructificationis sicut per lementa apparent.	Fig. 1. to 12.	exhibit the parts of the fructification as they appear through a magnifier.
Fig. 1. ad 6.	Flos anticus visus.	Fig. 1. to 6.	a flower seen in front.
Fig. 1. 4. 5.	PETALA exteriora latiora, 2. 3. interiora angustiora.	Fig. 1. 4. 5.	the outer broadest PETALS, 2. 3. the inner and more narrow ones.
Fig. 6.	<i>Labelium NECTARII</i> bifidum, in situ naturali saepius inflexum.	Fig. 6.	the Lip of the NECTARY, which in its natural situation is generally bent inward.
Fig. 7.	<i>Squama superior</i> , fig. 10. <i>Squama inferior</i> , (fultenaculum Halleri) inter quas theca staminum quasi in forcipe continetur.	Fig. 7.	the superior Squama, fig. 10. the inferior Squama (the fultenaculum of Haller) between which the case containing the stamens is held as in a pair of forceps.
Fig. 12.	Theca staminum, cum staminibus inclusis.	Fig. 12.	the Case of the stamens, with the stamens enclosed.
Fig. 8.	Theca staminum, demissis staminibus, fig. 9.	Fig. 8.	the Case of the stamens, the stamens having fallen out, fig. 9.
Fig. 15.	STAMINA CUM ANTERIS bilamellifos, flavis, feorim exhibitis.	Fig. 15.	the STAMINA with the ANTERÆ composed of two lamellæ of a yellow colour thrown by themselves.
Fig. 11.	Stigma.	Fig. 11.	the Stigma.
Fig. 15.	PERICARPIUM nat. magnitud.	Fig. 15.	SEED-VESSEL of its natural size.

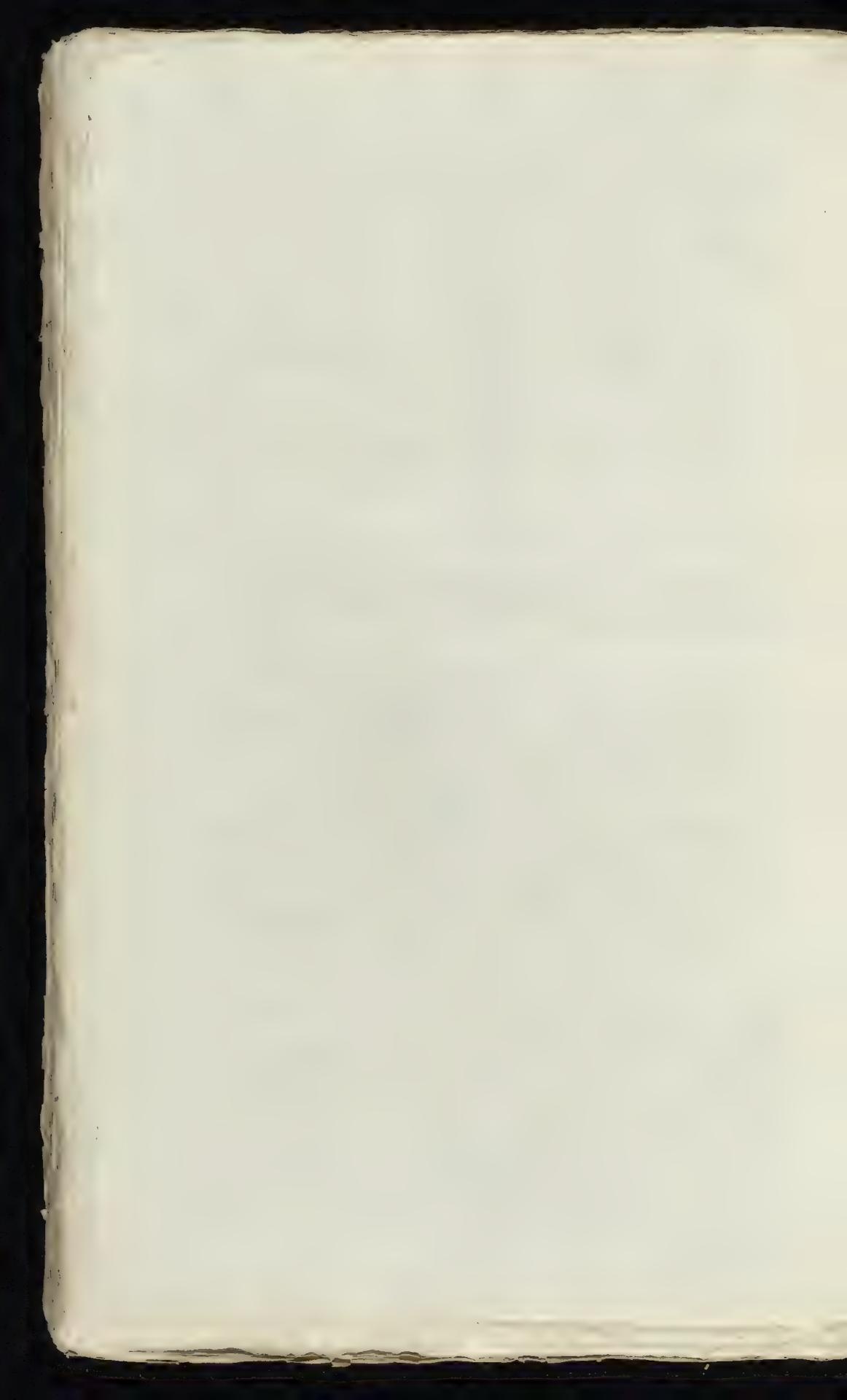
To render the characters of this genus, which are very difficult of investigation, easy to the Botanic Student, they are represented in a magnified state, and particularly referred to.

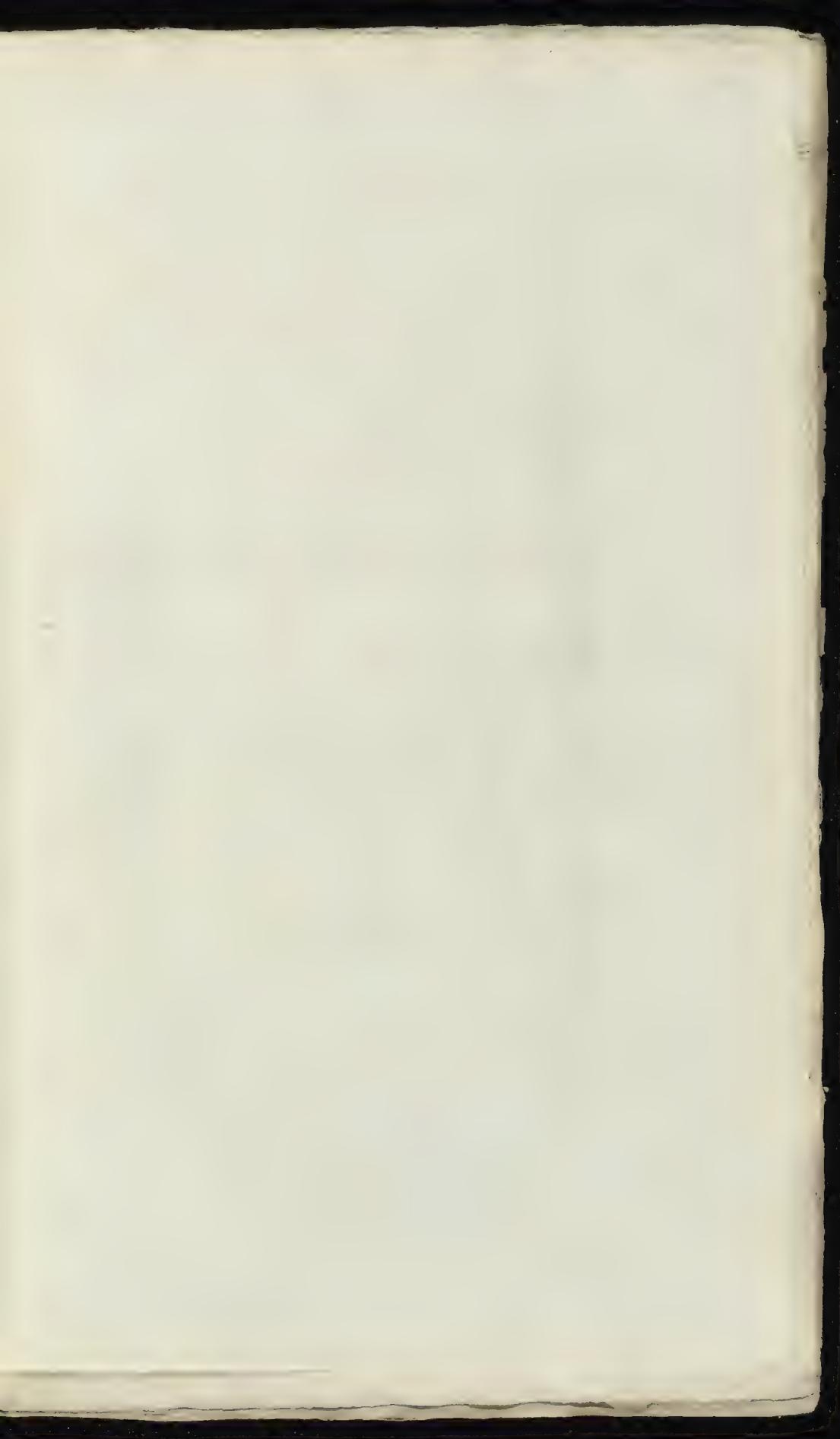
It will be seen on comparing, how very different they are from those of the Orchis.

This species of Ophrys is the most common of the whole genus, and may be found in most of the woods about London, particularly such as have a moist soil, as about Shooter's-hill, and sometimes it is found in Meadows and on Heath.

A variety with three leaves is now and then met with.

It flowers in May and June.





TYPHA MAJOR. GREATER CATSTAIL.

TYPHA Linnæi Gen. Plant. MONOECIA TRIANDRIA.

MASC. Amentum cylindricum. Cal. obsoletus, 3 phyllus,
Cor. o. FEM. Amentum cylindricum, infra masculos. Cal.
capillo villoso. Cor. o. Sem. 1. infidens pappo capillari.

Raii Syn. HERBÆ GRAMINIFOLIÆ NON CULMIFERÆ FLORE IMPERFECTO SEU STAMINEO.

TYPHA latifolia foliis subensiformibus, spica mascula feminaque approximatis. Lin. Syst. Vegetab.
p. 702. Sp. pl. 1377.

TYPHA clava unica. Haller. hyl. n. 1305.

TYPHA latifolia. Scopoli Fl. Carniol. p. 214.

TYPHA palustris major. Baubin. p. 20.

TYPHA palustris maxima. Parkinson, 1204.

TYPHA Ger. emac. 46. Raii Syn. p. 436. Great Catstail or Reed-mace. Hudson. Fl. Angl. ed. 2. p. 400.
Lightfoot. Fl. Scot. 538.

RADIX petensis, repens, crassitie pollicis, articulata, spongiosa, radiculis, fibroflos, albidi instructa, furculi albidi, teneri, in mucronem rigidam abeunte, more tritici canini.

CULMUS tripedalis ad sexpedalem, simplex, erectus, foliosus, teres, laevis.

FOLIA alterna, erecta, tortuosa, basi subensiformia, carnoxa, superne plana, glauca, unciam ferre lata, bi aut tripedalia, longissimâ vaginâ cicutem involucrata.

SPATHÆ duas, decidua, una ad spicâ mascula basin, altera ad ejus medium.

FLORES masculi numerosissimi in Amento erecto, culmum terminante.

CALYX, nullus.

COROLLÆ, nulla.

STAMINA: FILAMENTUM antequam antheræ pollinum dimitunt, brevissimum, sufficiens Antheram unam ad quatuor, demissæ polline pendulum, et antheris longius; ANTERÆ oblongæ, flavæ, quadrifoliate, glandulâ virilmente terminatae. fig. 1. 2. 3. 4.

FLORES feminæ numerosissimi, in amento, masculino subiecto et contiguo.

PISTILLUM: GERMEN ovatum, minimum, pedunculo brevi infidens; STYLUS superne incrassatus; STIGMA nigrum.

SEmen minimum, pedunculatum, aristatum, pedunculo pappo. fig. 5.

RECEPTACULUM amenti masculi pilosum.

ROOT perennial, creeping, the thickness of one's thumb, jointed, spongy, furnished with small fibrous roots of a whitish colour, the young shoots white, tender, terminating in a sharp hard point, like that of the common couch grass.

STALK from three to six feet high, simple, upright, leafy, round and smooth.

LEAVES alternate, upright, twisted, at bottom sword shaped and fleshy, at top flat, and of a bluish colour, about an inch in breadth and two or three feet in length, inclosing the stalk in a very long sheath.

SHEATHES two, deciduous, one placed at the bottom of the male spike, the other at the middle.

FLOWERS of the male very numerous, in an upright Catkin, terminating the stalk.

CALYX wanting.

COROLLÆ wanting.

STAMINA: the FILAMENT before the shedding of the pollen is very short, subsisting from one to four Antheræ, the pollen being shed, they hang down and become longer than the antheræ; ANTERÆ oblong, yellow, with four grooves, and terminated by a greenish gland. fig. 1. 2. 3. 4.

FLOWERS of the female extremely numerous, in a catkin placed under and contiguous to the male catkin.

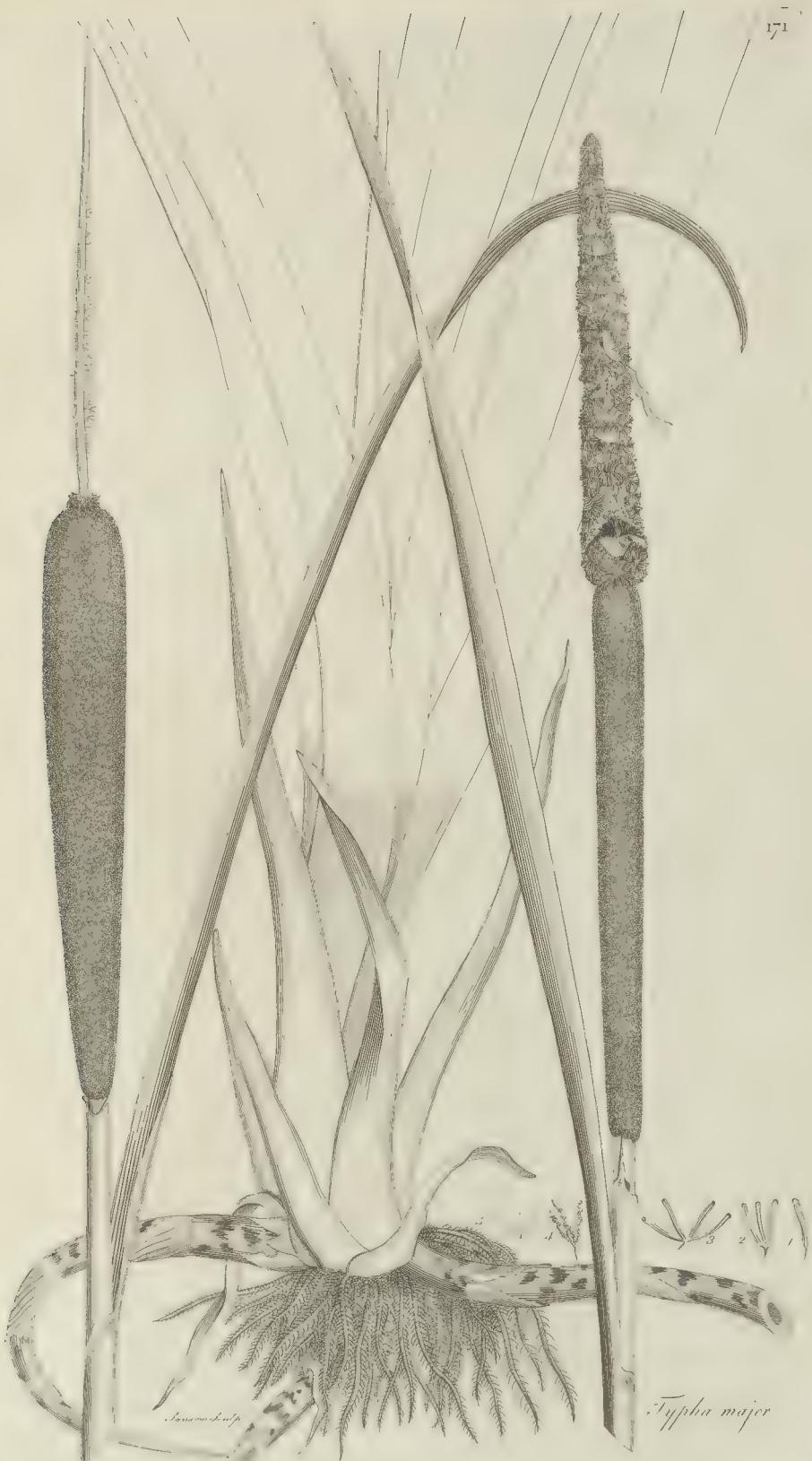
PISTILLUM: GERMEN oval, very minute, sitting on a short footstalk; STYLE thickened above; STIGMA black.

SEED very small, sitting on a footstalk, and terminated by an arista, the footstalk downy, fig. 5.

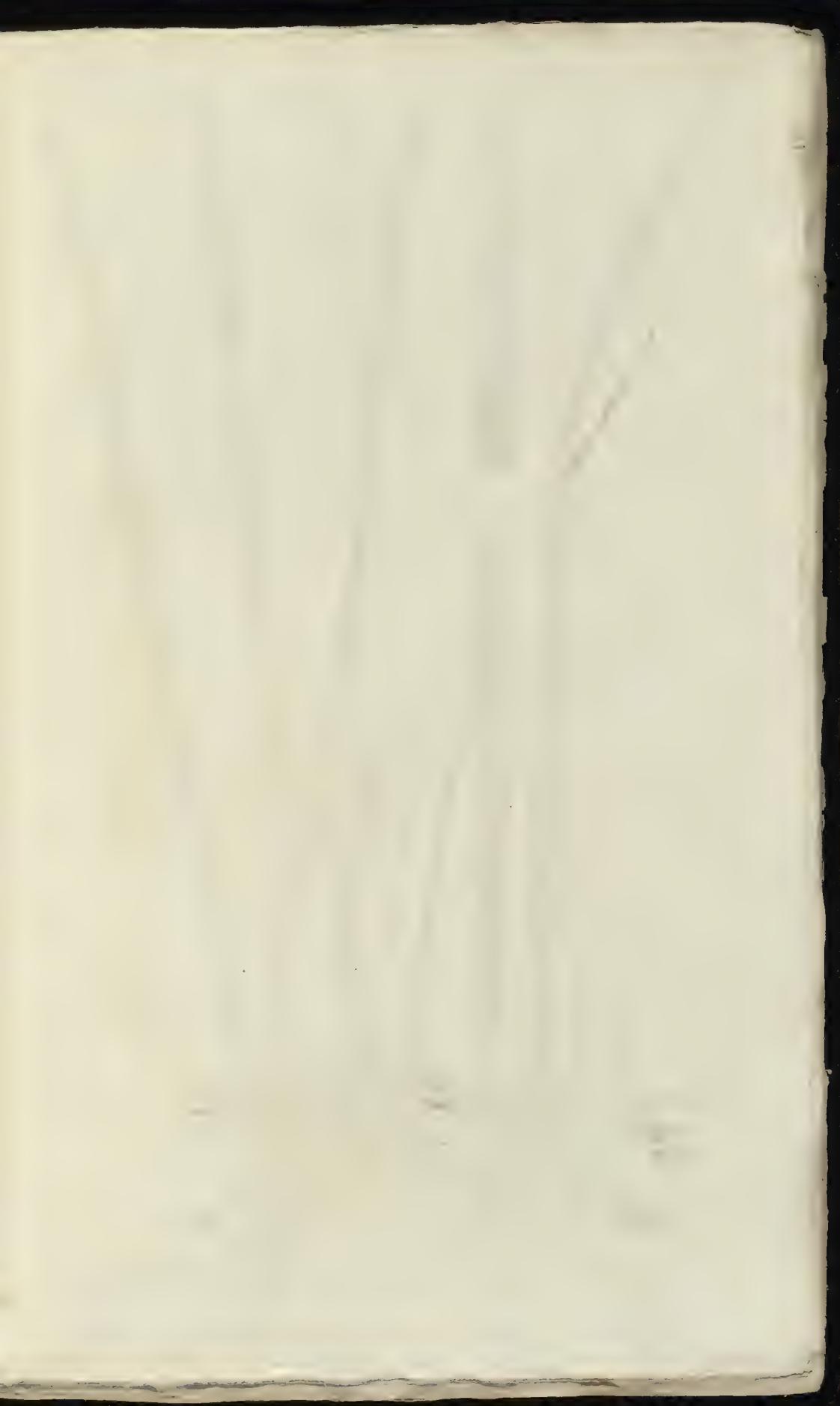
RECEPTACLE of the male-catkin hairy.

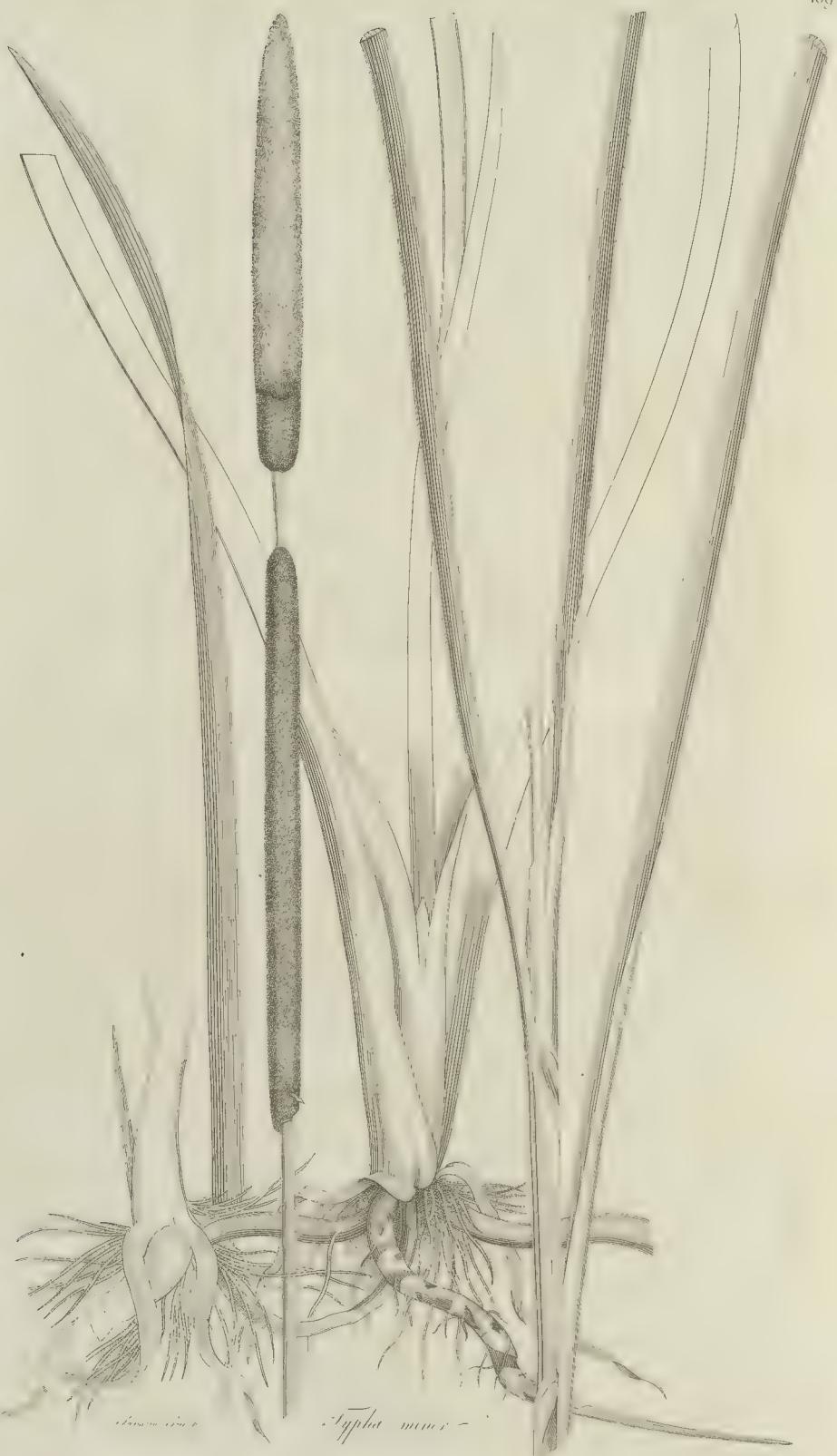
THE appearance of the *Typha Major*, when its spike is nearly ripe, is sufficiently striking to engage the attention even of the most incurious; it is not therefore to be wondered at, that Gentlemen, who are fond of Plants, should introduce it on the edges of their ponds, or that Painters should make it a conspicuous Plant in their representations of water; the Gentleman should however be apprized, that it has a creeping root, which encreases very much, soon chocks up a small piece of water, and overpowers other aquatics; thus difficult to keep within proper bounds, the most eligible mode of cultivating it is found to be in some border of the garden, where, if the soil be moist, it will nourish and produce spikes more abundantly than in the water.

The



Typha major





Typha minima

The quantity of impregnating dust contained in the male spike is exceedingly great, though proportioned indeed to the astonishing number of seeds in the female spike below; if these seeds are endowed with a vegetative power, (and that they are not I cannot assert from experiment) Nature will appear to have been unusually solicitous in the preservation of this Plant; but it often happens, as elsewhere has been observed, that many of those plants which increase very much by their roots seldom produce perfect seed, as in the Moneywort, Butterbur, Water Violet, &c. here indeed the seed appears to come to its greatest perfection; they are, it is true, exceedingly minute, but this is no argument against their growth, as the seeds of the Ferns, which are infinitely smaller, are known to vegetate, and so are those of the Mofles, which are yet smaller; for, whatever some Botanists may assert to the contrary, the fine powder contained in their capsules, is as much seed as that contained in the capsules of the Ferns.

To ascertain the fact relative to the Typha, and to learn whether it increases in any considerable degree from the seed, I propose sowing round some pond where it is not known to grow, several spikes with the seeds just beginning to blow off, and shall relate the effects of this experiment under the *Sparganium*, or Burreed.

The parts of fructification in this plant being very minute, are with difficulty investigated. Linnæus, who examined and described them, without the assistance of a magnifier, is therefore excusable, if he has not been so minutely accurate in his description of them, as he is in most others.

The Calyx which he describes does not appear to be the Calyx, but rather some of the hairs proceeding from the receptacle, and which indeed appear more evidently to be so, from the hairy appearance of the receptacle when the stamens are dropped off; on one Filament are supported one, two, three, or four Antheræ, and that indiscriminately, so that there does not appear to be any great propriety in placing it in the order Triandria, it would be much less puzzling, and perhaps more agreeable to the system, to place it in the order Polyandria, there being many stamens, and all of them united to one receptacle.

The uses to which this plant are applied are but few.

The Roots are said to be eaten as a salad. *Haller. bift. ex aut. Gledie.*

The downy seeds serve for stuffing pillows. *Haller. bift.*

Coopers use the leaves to fasten the hoops round their casks. *Lin. ex aut. Ruppii.*

According to HALLER, cattle eat the leaves which are suspected to be poisonous by SCHREBER.

It grows in ponds, ditches, and by the sides of rivers in many places about London, and flowers in July.

TYPHA MINOR. SMALLER CATSTAIL.

TYPHA *Limaci* Gen. Pl. MONOECIA TRIANDRIA.

MASC. Amentum cylindricum. *Cal. obfoletus,* 3 phyllus *Cor. o.* FEM. Amentum cylindricum, infra macrostachys. *Cal. capillo villoso. Cor. o. Sem. 1. infundens pappo capillari.*

Raii Syn. HERRE GRAMNIIFOLIA NON CULMIFERA & FLORE IMPERFECTO SEU STAMINEO.

TYPHA angustifolia foliis semicylindricis, spica mascula feminineaque remotis. *Lin. Syst. vegetab. p. 702. Sp. pl. 1377.*

TYPHA clava macrostachys feminina remota. *Haller. bift. 1306.*

TYPHA angustifolia. *Scopoli. Fl. Carniol. p. p. 214.*

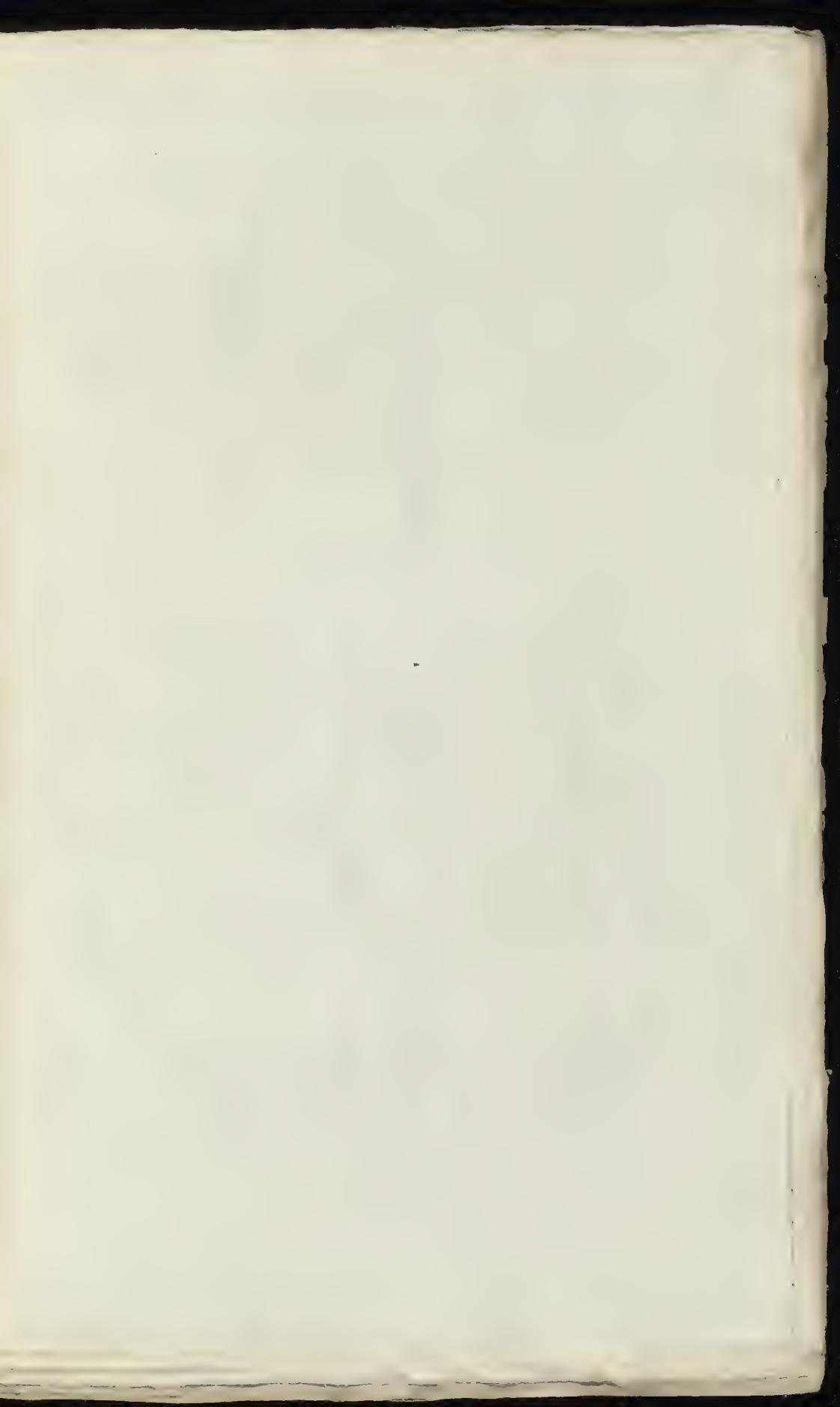
TYPHA palustris minor. *Baubin pim. p. 20.*

TYPHA minor *Parkinson.* 1204. *Raii Syn. 436.*

Hudson. Fl. Angl. ed. 2. p. 400.

THE Typha Minor is a much scarcer plant about London than the Major, from which it differs specifically in having much narrower leaves and slenderer spikes, the male spike being also distant from the female about an inch; in the structure of its parts and its general economy it resembles the other.

I have observed it growing near Battersea, where it is now destroyed; also on the middle of Woolwich Common, where the Botanist may probably find it a hundred years hence. It flowers at the same time as the Major.



CAREX PENDULA. PENDULOUS CAREX.

CAREX Lin. Gen. Pl. MONOCARIA TRIANDRIA.

MASC. 1 phyllus. COR. O. FEM. Amentum imbricatum. CAL. 1 phyllus. COR. O. Nectarium inflatum, 3 dentatum. Germen triquetrum, intra nectarium.

Raii. Syn. Gen. 28 HERBÆ GRAMINIFOLIE NON CULMIFERÆ IMPERFECTO SEU STAMINEO.

CAREX spicis femininis pendulis longissimis, capsulis mucronatis ovatis. Haller. hist. 1396.

CAREX pendula, spicis subfusilibus pendulis, maſcula ereta, feminine cylindricis longissimis, capsulis subrotundis acuminatis. Hudson. Fl. Engl. ed. 2 p. 411.

GRAMEN spica pendula longiore et angustiore B. pin. 6. Pr. 13. J. B. II. 497.

GRAMEN cyperoides spica pendula longiore. Perkins. 1267. Raii. Syn. p. 420. Many-spiked Cyperus-graſs with long pendulous heads.

RADIX perennis, non vero repens.

CULMUS tripedalis, ad oxyalem in solo lætiori etiam accedit, triquetus, levigatus, superne striatus, foliosus.

FOLIA femuncina lata, viridia absque ullâ glaucidine, oris nervisque subaferis, minute ferrulatis, minus vero quam in multis aliis hujusce generis.

SPICÆ: omnes pendulae, suprema e floribus maſculis omnino compoſita, crassa, bafi tenuior, secunda et tercia feminine apice incrassata, ubi androgynæ, inferiores feminine, lineares, longissimæ.

Flores maſculi.

SQUAMÆ ovato-lanceolatae, acuminatae, e fuſco purpureoſcente, concavæ, trinerves. fig. 1.

STAMINA: FILAMENTA tria, capillaria, demiflo pol-line longitude squamarum; ANTHÆ lineares, quadrifoliatæ, flavæ. fig. 2. 3. 4.

Flores feminine.

SQUAMÆ ut in maſculo. fig. 5.

NECTARIUM inflatum, ovato oblongum, glabrum, collo constricto. fig. 6.

PISTILLUM: GERMIN triquetrum, intra Nectarium; STYLUS brevissimus; STIGMATA tria, filiformia, pubescens. fig. 7. 8.

SEMENT unicum, ovato acutum, triquetrum.

ROOT perennial, but not creeping.

STALK three feet high, in a rich soil growing even to the height of six feet, three cornered, smooth, at top striated, leafy.

LEAVES half an inch broad, green without any glaucous appearance, somewhat rough from being finely sawed, but much less so than many others of this genus.

SPIKES: all of them pendulous, the uppermost composed entirely of male flowers, thick, but slender at its base, the second and third female, thick at top, with a mixture of male and female flowers, the lower ones female, linear, and very long.

Flowers of the male.

SCALES narrow-oval, running out to a long point, of a brownish purple colour, hollow, with three ribs. fig. 1.

STAMINA: three FILAMENTS very fine, on the shedding of the pollen becoming as long as the scales; ANTHÆ linear with four grooves, and of a yellow colour. fig. 2. 3. 4.

Flowers of the female.

SCALES as in the male. fig. 5.

NECTARY inflated, of an oval oblong shape, smooth, the neck contracted. fig. 6.

PISTILLUM: GERMIN three cornered, within the Nectary; STYLE very short; STIGMATA three, thread-shaped, and downy. fig. 7. 8.

SEED single, oval pointed, and three cornered.

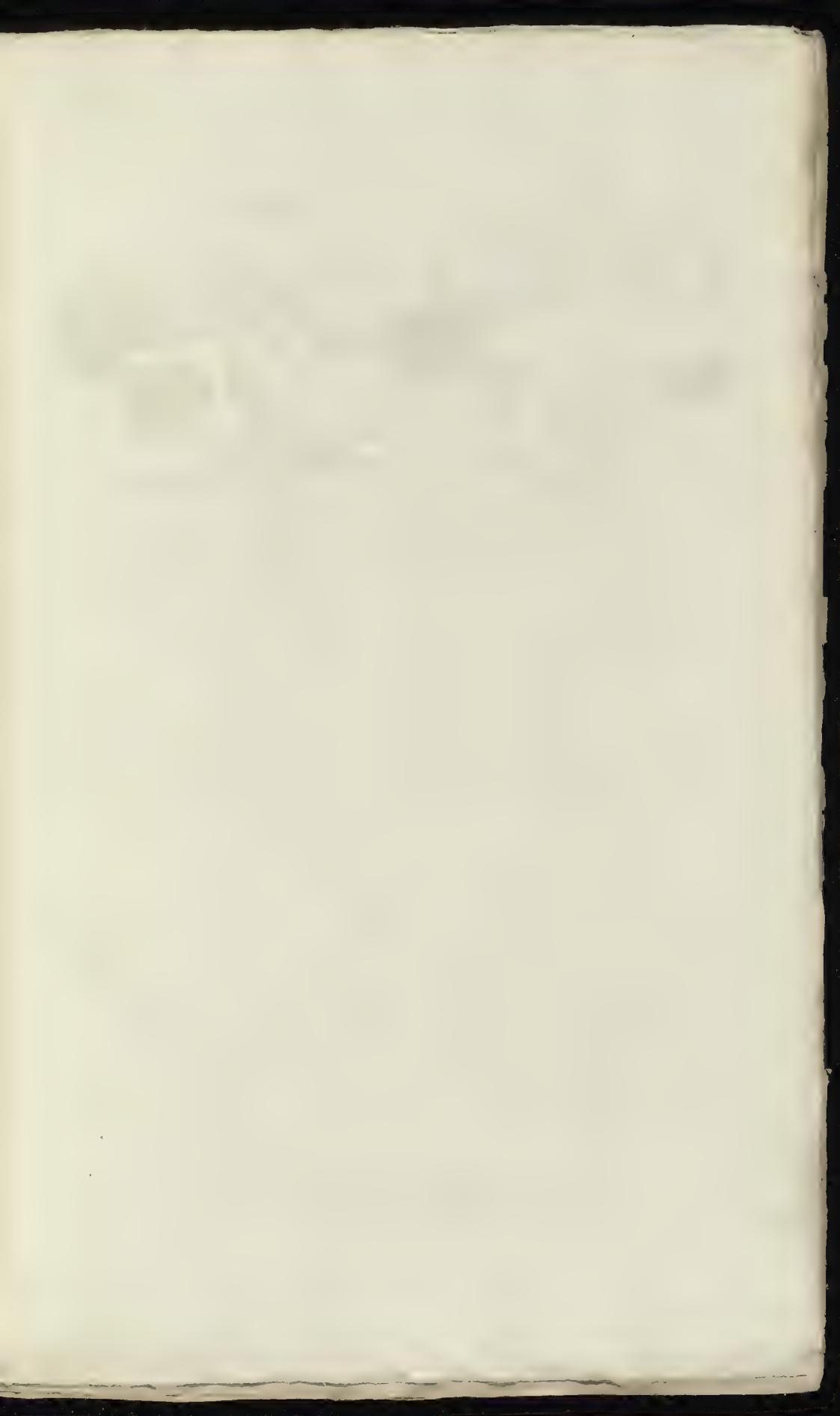
We have here given for the first, a figure and description of the *Carex pendula*, one of a numerous tribe of plants, distinguished not less by the singularity of their fructification, than the difficulty which attends an investigation of their several species, from this difficulty the present plant may however claim a total exemption, for in whatever situation it is found, its long, pendulous, female spikes at once distinguish it, these when young are very slender, as the seeds ripen they become much thicker and cylindrical.

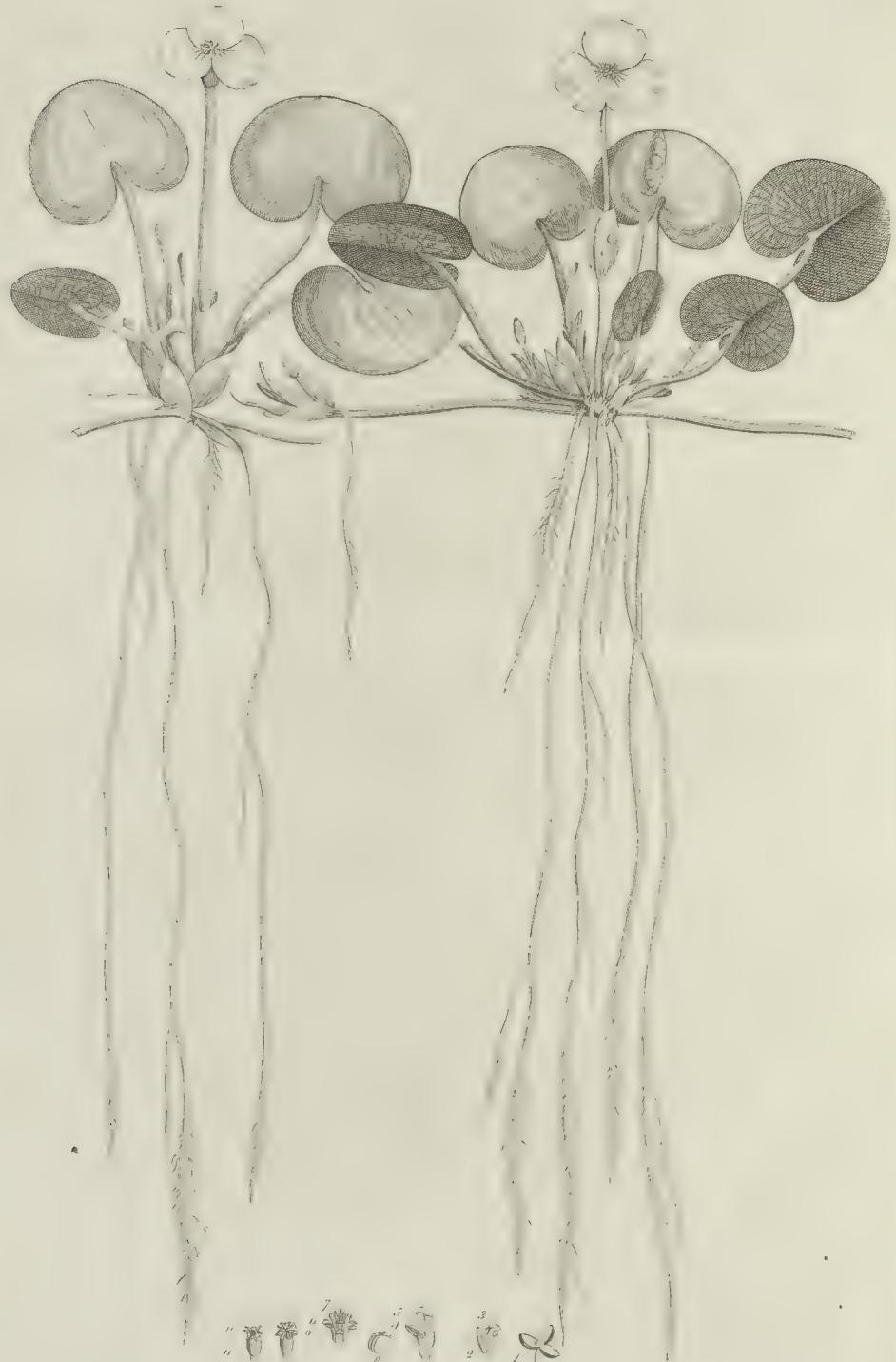
This elegant species is found in great abundance in the moist hedges about Hamstead and Highgate, flowering in May and ripening its seeds in June.

It is not applied so far as our knowledge at present extends to any particular purposes.



Carex pendula





Hydrocharis morsus-ranae

Linnaeus

HYDROCHARIS MORSUS RANÆ. FROG-BIT.

HYDROCHARIS *Linnæi*. Gen. Pl. DIOECIA ENNEANDRIA.

MASC. *Spatha* 2 phylla. Cal. 3 fidus. Cor. 3 petala. Filam. 3 interiora stylifera. FEM. Cal. 3 fidus. Cor. 3 petala. Syl. 6. Caps. 6 locularis, polysperma infera.

HYDROCHARIS. *Linnæi*. Syst. Vegetab. p. 746. Spec. Pl. 1466. Fl. Suecic. n. 914.

HYDROCHARIS. *Haller*. Syst. 4. 1068.

NYMPHÆA alba minima. *Baub.* p. 193.

MORSUS RANÆ *Parkinson*. 1252.

MORSUS RANÆ *Gerard*. emac. 818.

STRATIOTES folio asari, femine rotundo *Raii*. Syn. p. 290. The least white Water Lilly or Frog-bit.
Hudson. Fl. Angl. ed 2, p. 436.
Lightfoot. Fl. Scot. p. 622.

RADIX: Flagellis in longum extensis facile multiplicatur hæc planta, nutrimentum hauriens per radiculas albas, fibrilosas, in limum profunde descendentes.

FOLIA sex, five oœ, natantia, rotundato-reniformia, carnosæ, glabra, integrerrima, subpellucida, venis paucis circularibus, plurimis transversis notata, subitus rubella.

PETIOLE spathamæi, crassi, pellucidi, lineis plurimis decussatis.

SPATHÆ in utraque sexu plurimæ, radicales, ovatae, pellucideæ, in masculis etiam circa medium pedunculi enaeruntur binæ, flosculos tenellos, inapertos quasi in vesicæ continentes.

PEDUNCULI longitudine petiolorum, erexit; masculi triflori aut quadriflori; feminei uniflori, crafiores.

Male.

CALYX: PERIANTHUM triphyllum, foliolis ovalis, concavis, flavecentibus, membranaceis, patentibus. fig. 1.

COROLLA: PETALA tria, alba, plana, rugosula, tenebrina, bafi flava.

STAMINA: FILAMENTA novem, in tres ordines disposita, quorum intermedius ordo stiptem fulbulatum e bafi sua interiore, stylis ad infar exerit, et in centro collocat. Duo reliqui ordinis bafi connectantur, ut internum et externum cohæreat filamentum; ANTHÈRE sublineares, biloculares, flavæ. fig. 2. 3. 4. 5. 6. 7.

PISTILLUM: GERMINIS rudimentum in centro. fig. 8.

Femina.

CALYX: PERIANTHUM ut in mare, superum.

COROLLA ut in mare.

PISTILLUM: GERMIN subovatum, inferum: STYLI sex, longitudine calycis, patentes, compressi, bifido-canaliculati; STIGMATA bifida, acuminata. fig. 9. 11.

NECTARIUM: Glandules tres, flavæ, germen coronant. fig. 10.

PERICARPIUM: CAPSULA coriacea, subrotunda, exlocularis.

SEMINA numeroſa, minima, subrotunda.

ROOT: this plant easily multiplies itself by means of runners which shoot out to a great length, and is supported by long fibrous roots, which penetrate deep into the mud.

LEAVES fix or eight, swimming, of a roundish kidney shape, fleshy, smooth, perfectly entire, somewhat transparent, marked with a few circular but numerous transverse lines, reddish underneath.

LEAF STALKS fix or seven inches long, thick, transparent, having numerous crois bars.

SHEATHS in both sexes numerous, next the root, oval, and transparent, in the male plant also a pair grow out about the middle of the flower stalk which contain the tender unopen'd blossoms as in a bladder.

FLOWER-STALKS the length of the leaf stalks, upright; the male producing three or four flowers, the female one only, thicker in size.

Male.

CALYX: a PERIANTHUM of three leaves, which are oval, concave, yellowish, membranous and spreading. fig. 1.

COROLLA: three, white, flat Petals a little crumpled, very tender, and yellow at bottom.

STAMINA: nine FILAMENTS, disposed in three rows, of which each in the middlemost puts out from its base on the inside a style like substance which is placed in the center of the flower. The two other rows are connected at bottom so that the internal and external filament adhere together; ANTHÈRE yellow, nearly linear, with two cavities. fig. 2. 3. 4. 5. 6. 7.

PISTILLUM: the rudiment only of a GERMIN in the center. fig. 8.

Female.

CALYX: a Perianthium as in the male, placed above the Germin.

COROLLA as in the male.

PISTILLUM: GERMIN somewhat oval, beneath the calyx; STYLES fix, the length of the calyx, spreading, flat, forked and channel'd; STIGMATA forked and pointed.

NECTARY: three yellow Glands crown the germin.

SEED-VESSEL: a roundish, leathery Capsule, with six cavities.

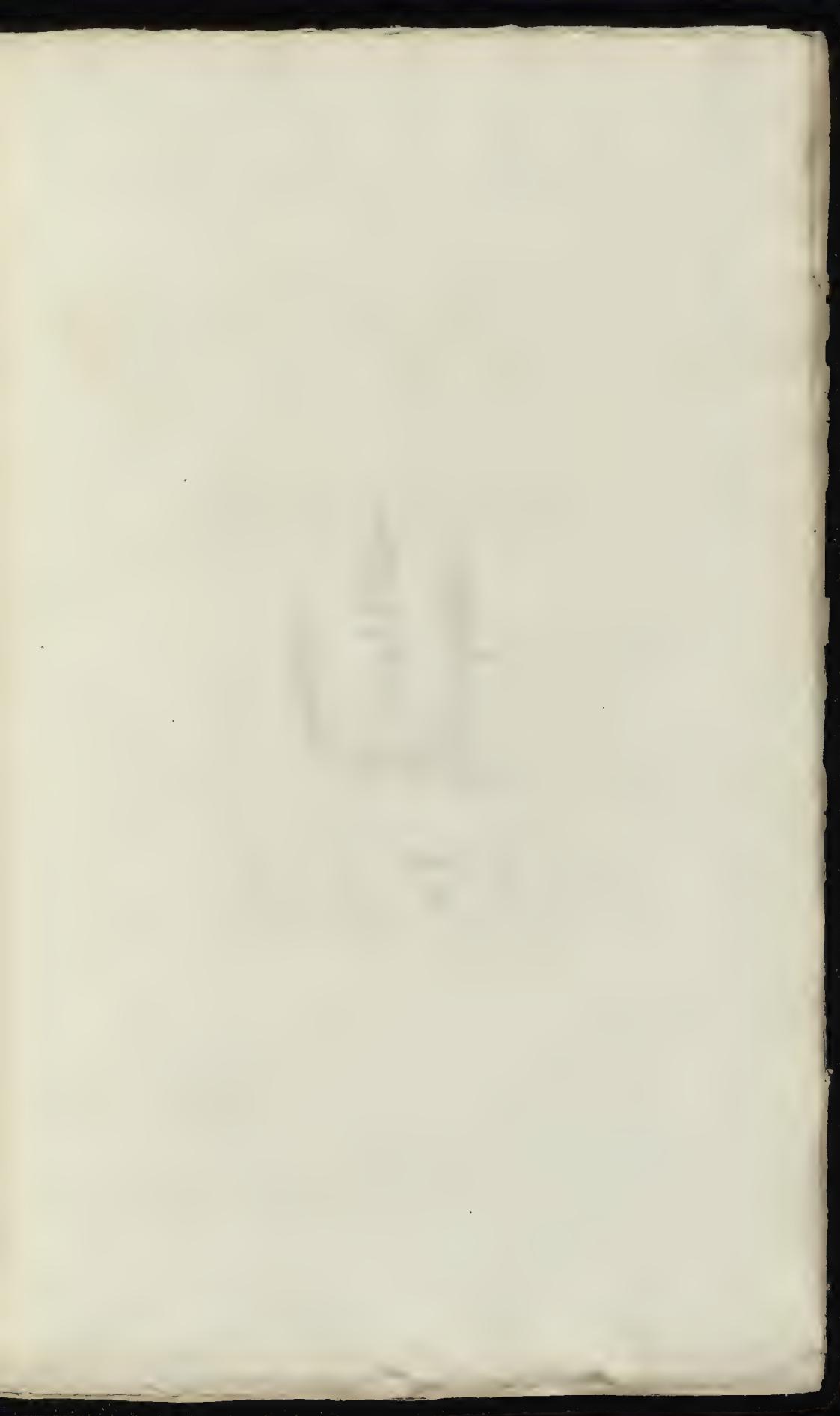
SEEDS numerous, very minute, and roundish.

Most of the deep ditches with a muddy bottom, having a flow current of water, and which abound in the vicinity of the Thames, have their surface cover'd with this plant in Autumn, at which period its blossoms which are uncommonly delicate make their appearance.

The leaves and indeed the whole structure and economy of the Frog-bit is exceedingly curious, and deserving the minute attention of the inquisitive Botanist.

Its particular uses we seem at present unacquainted with.

RAY mentions a variety of it with sweet, double flowers, growing in a ditch at the side of *Audrey Cawsey* near a wooden bridge in the Isle of Ely.



20°



Hypnum revolutum

hypnum revolutum

HYPNUM PURUM MEADOW HYPNUM.

HYPNUM Lin. Gen. Pl. CRYPTOGAMIA MUSCI.

Anthera operculata, *Calyptra* lavis, Filamentum laterale ortum e perichaetio.

Raii Syn. Gen. 3. Musci.

HYPNUM purum furculis pinnato-sparsis subulatis, foliis ovatis obtusis conniventibus. Lin. Syst. Vegetab.

p. 108. Sp. Pl. 1594. Fl. Suecic. 1031.

HYPNUM ramis teretibus, foliis ovato lanceolatis, fetis prælongis, capsulis inclinatis, aristatis.

HYPNUM purum. Scopoli Fl. Carniol. n. 1326.

HYPNUM cupressiforme vulgare, foliis obtusis. Dillen mysc. p. 309 fig. 45.

MUSCUS squamosus cupressiformis. Vaillant Bot. parisi. p. 138. n. 15. Tab. 28. f. 3.

HYPNUM terrestre erectum, ramulis teretibus, foliis inter rotunda et acuta medio modo se habentibus.

Raii. Syn. 81.

Hudson. Fl. Angl. ed. 2. p. 504.

Lightfoot Fl. Scot. p. 753.

CAULES teretiusculi, suberecti, simplices seu ramosi, squamosi, nitentes, apicibus plerumque crassioribus.

RAMULI pinnato-sparsi, teretiusculi, subulati, plerumque recurvi.

FOLIA ovata, obtusa, mucronata, convexo concava, tenera, nitida, dense imbricata, adpresso, palidi virantia fig. 1. auct.

PEDUNCULI nobiscum non raro occurunt mensa Novembri, unciales et biunciales, erecti, inferne ruberimi, superne flavescentes, parum flexuosi, nitidi.

PERICHETIUM oblongum, squamosum, squamæ erectæ, lanceolatae, adpresso, fig. 2.

CAPSULÆ adulta subovata, parum nutantes; fig. 5. 8. *Calyptra* membranacea, lavis, primo erecta fig. 4, cito caduca fig. 3. *Operculum* breve, conicum, fig. 6. 7; *Cilia*; externæ plurimæ, seticæ, rigidulæ, rufescentes; internæ membranæ connexæ, apice convergentes; Pollen seu Semen virens fig. 10.

STALKS roundish, somewhat upright, simple or branched, scaly, shining, the tops generally thickened.

SMALL BRANCHES numerous, irregularly pinnated, tapering, generally bent back.

LEAVES ovate, obtuse, but terminated by a short point or awn, convex on one side and concave on the other, tender, shining, numerous, laying closely one over the other, of a pale green colour. fig. 1. magnif.

PEDUNCLES not unfrequent with us in the month of November are from one to two inches in length, upright, below of a bright red colour, above yellowish, a little crooked and shining.

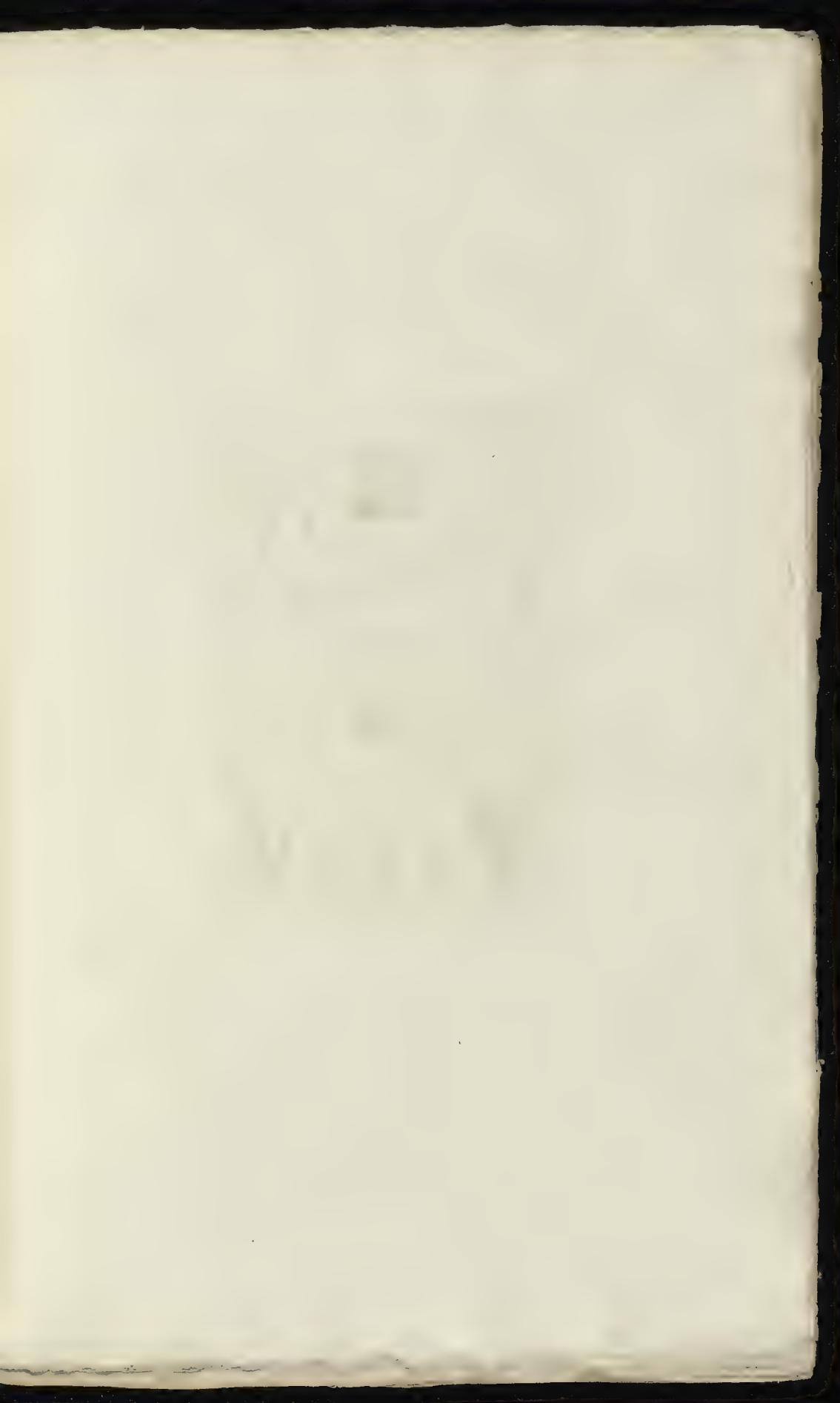
PERICHETIUM oblong, scaly, scales upright, lanceolate and press'd to the bulb, fig. 2.

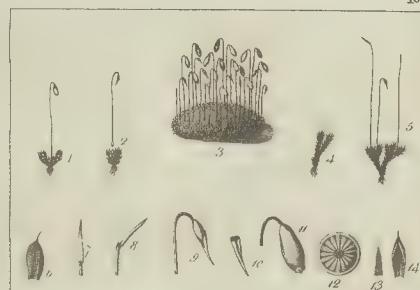
CAPSULES when full grown are somewhat ovate, and a little nodding fig. 5. 8. *Calyptra* membranous, smooth, at first upright fig. 4, soon falling off fig. 3; *Operculum* short and conical fig. 6. 7; the outer *Cilia* numerous, tapering, somewhat rigid and of a reddish brown colour, the internal ones connected by a membrane and converging to a point; Pollen or seed of a greenish colour. fig. 10.

THE *Hypnum purum* has been considered as producing its Fructifications but sparingly, yet if it be examined at the proper season of the year viz. in the month of November, the period of its greatest perfection, it will not be found deficient in this respect, at that time its leaves are of a bright green colour, but as the plant advances they change to a yellower hue than most others.

DILLENIUS makes no mention of the *Calyptra* belonging to this moss, from whence it would appear that like most other Potaniffs he examined it at too late a period; in general those Capsules which have a short Operculum carry the *Calyptra* but a little while, as in the present plant, while those in which the operculum is long bear it often to the falling off of the operculum itself as in the *Bryum undulatum*.

This is one of the most general Mosses we have, growing in woods, in pastures and by hedge sides universally, in the former it is most frequently found with its capsules, the oak of Honour Wood and the woods adjoining produce it in this state at the time above mentioned in the greatest plenty; being a moss generally free from all impurities it is made use of by the anglers in Lancashire and probably in other counties to scour their worms in. Dillen mysc. p. 310.





Bryum capillare



Bryum argenteum

BRYUM ARGENTEUM. SILVER BRYUM.

BRYUM Lin. Gen. Pl. CRYPTOGAMIA MUSCI.

Anthera operculata, Calyptra levis. Filamentum e tuberculo terminali ortum.

Raii. Syn. Gen. 3. Musci.

BRYUM argenteum antheris pendulis, furculis cylindricis imbricatis levibus. Lin. Syl. Vegetab. p. 789.

Sp. Pl. 1586. Fl. Suec. n. 1008.

BRYUM caulibus teretibus, capsulis ovatis acuminatis pendulis. Haller. bijt. 1821.

BRYUM argenteum. Scopoli. Fl. Carn. n. 1310.

BRYUM pendulum julaceum argenteum et ferriceum. Dill. Musc. 392. t. 50. f. 62.

MUSCUS squamosus argenteus, ericae folio. Vaillant. paris. 134. t. 26. f. 3.

MUSCUS minimus e viridi argenteus, capitulus oblongis cernuis. Mori. bijt. 3. p. 627. f. 15. t. 6. f. 17.

Conferuntur nascit, caulinus fessilis, in ramulorum aliquot furculis teretes, (duarum trium linearum divisi).

FOLIA ovata-lanceolata, acuta, pilo terminata, quadruplici alterna serie disposita, tam arcta cauli appressa sunt, ut nonnisi per letem distingui possint, pilis creberrimis, sericeis, argenteis.

PEDUNCULI circa hiemem surgunt e basi caulinorum, ab aliquot lineis ad semicirculum longae, inferne purpureæ, superne pallidiores.

CAPSULÆ ovatae, nutantes, luteæ, verius setam rubicundæ, qua ab initio virides, et rectæ ante maturitatem fuere. Operculum breve, obtusum, aurantiacum. Ora ciliata, Calyptra e viridi fusca, qua nonnisi in junioribus capsulis reperiuntur.

Stalks growing close together and sessile, dividing into round furculi two or three lines in length.

LEAVES oval pointed, terminated by a hair, disposed in an alternate quadruple row, so closely pressed to the stalk, as to be scarce visible without a magnifier, the hairs exceedingly numerous, silky, of a silver colour.

PEDUNCLES arise from the bottom of the stalks, about winter, from a few lines to half an inch in length, below purplish, above paler.

CAPSULES oval, pendulous, yellowish, but near the peduncle reddish, when young green, and upright. Operculum short, obtuse and of an orange colour. Mouth ciliated, Calyptra of a greenish brown, and only visible in the young capsules.

It is not possible in painting to do justice to the silvery appearance which this little moss usually puts on, and which in general obviously distinguishes it from all our other Bryums, this silvery hue it however loses in some situations and appears of a green colour, especially in moist shelter'd places, where the leaves not only become greener but laxer also and the furculi grow to a much greater length, in this state it is figured by DILLENIUS as a distinct species, the furculi vary much likewise in their shape sometimes becoming very fine and almost thread shaped as represented at fig. 2. 3.

The Bryum argenteum produces its Capsules as early as December and January, and this their early appearance is one reason why they are not so often found as some others, but added to this it does not produce fructifications so plentifully as some other Bryums, large patches of it being often found perfectly barren.

It is very common on Walls and Banks.

Fig 1. to 7. represent it of its natural size in its various states, fig 8. to 12 magnified.

BRYUM CÆSPITICUM. MATTED BRYUM.

BRYUM cæspiticum antheris pendulis, foliis lanceolatis acuminato-setaceis, pedunculis longissimis. Lin. Syl. Vegetab. p. 799. Sp. Pl. p. 1586. Fl. Suec. 1010.

HYPNUM folium ovato-lanceolatum arifatis patulis, capsulis ovatis obtusis pendulis. Haller. bijt. 1790.

BRYUM pendulum ovatum cæspiticum et pilosum, feta bicolori. Dill. Musc. 396. tab. 50. f. 66.

MUSCUS capillaceus minimus, capitulo nutante, pediculo purpureo. Vaill. paris. 134. t. 29. f. 7.

MUSCUS trichoides capitulo parvo reflexo, pedicula ima medietate rubro, summa luteo-viridi. Moisis.

H. Ox. III. p. 629. f. xv. t. 6. f. xv. Raii. Syn. p. 100. n. 44.

CAULICULIS in densos cæspites congestis, lata strata efficit, supra muros imprimis et in terra gla-rofa. fig. 3.

SURCULI ipsi breves, et ad aliquot tantum lineas super terram eminentia, fig. 1. 4. subramosis, inferius multo tonito fusco obscuris.

FOLIA exigua, dense congesta, ovato lanceolata, pilo incano terminata, pallide et luteo viridia, ferrea, splendens, sub lente in humida planta pellucida. fig. 14. 16.

PEDUNCULI unciales, fig. 5. inferne purpureæ, superne luteæ, e furculorum annotinorum rotula terminali prodeunt, fig. 1. inter ramulos, five potius furculos juniores, bulbillo instruti, fig. 2.

CAPSULA ex ovato-cylindrica, ab initio erecta fig. 7. tenuior, deinde sensim crassifrons, pendula, fig. 8. 9. 11. sublutea, operculo testa papilliformi, miniatæ, nitido, quo secundente ora apertæ ciliata. fig. 12.

CALYPTRA in junioribus erecta, gracilis, conica, pallide fusca, in adulterioribus rufa, inclinata, fig. 7. 8. 9.

STALKS growing closely together, form broad turfs particularly on walls and gravelly situations. fig. 3.

SURCULI themselves short, raised a few lines only above the earth, somewhat branched, fig. 1. 4. below cover'd with a brown wooly kind of substance.

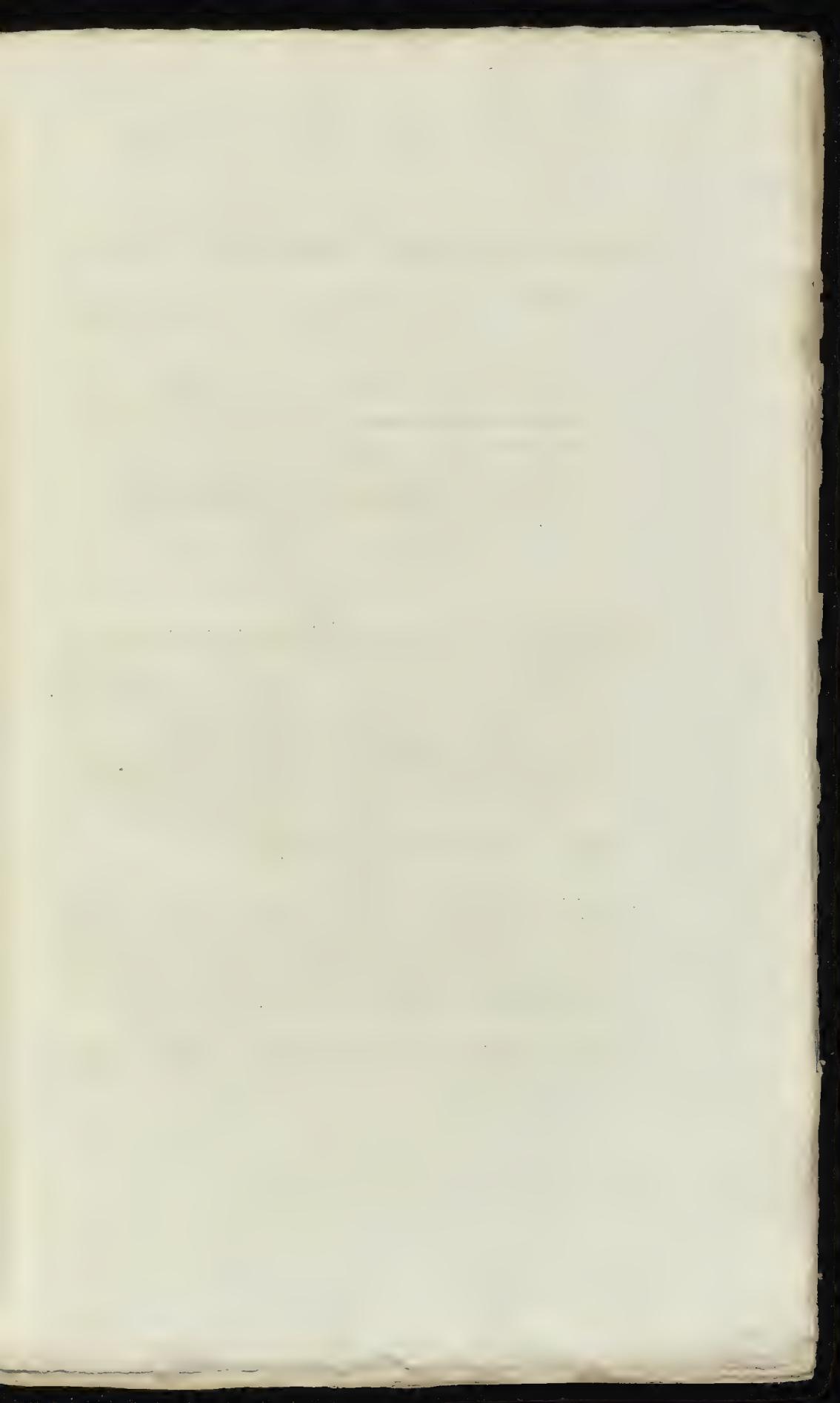
LEAVES small, closely compacted, oval pointed, terminated by a grey hair, of a pale yellowish green colour, silky, shining; under a magnifier, in the moist plant transparent. fig. 14. 16.

PEDUNCLES about an inch in length, fig. 5. below purple, above yellow, proceeding from the top of the last years furculus fig. 1. between the branches or rather younger furculi, furnished with a small bulb. fig. 2.

CAPSULE of an oval cylindrical form, at first upright. fig. 7. slender, afterwards becoming gradually thicker and pendulous, fig. 8. 9. 11. of a yellowish colour, cover'd with small, short, prominent red and shining operculum, which falling off the mouth appears ciliated. fig. 12.

CALYPTRA on the young capsules upright, slender, conical, and of a pale brown colour, in those more advanced reddish brown, and inclined to one side. fig. 7. 8. 9.

THIS species of Bryum is very commonly met with on Walls also on gravelly and sandy soils producing its Capsules in February, March and April, it varies much in size, in the shape of its leaves and the length of its Surculi.



BRYUM SUBULATUM. AWL-SHAPED BRYUM.

BRYUM Lin. Gen. Pl. CRYPTOGAMIA MUSCI.

Anthera operculata. Calyptra laevis. Filamentum e tuberculo terminali ortum.

Raii Syn. Gen. 3. Musci.

BRYUM subulatum antheris erectis subulatis, furculis acaulis. Lin. Syst. Vegetab. p. 797. Sp. Pl. p. 1581. Fl. Suec. n. 991.

BRYUM caule brevissimo, foliis lanceolatis, capsulis longissimis, operculo praelongo. Haller. h. 1827.

BRYUM subulatum. Scopoli Fl. Carn. n. 1304.

BRYUM capsulis longis subulatis. Dill. Myc. 350. t. 45. f. 10.

BRYUM erectis longis et acutis falcatis capitulis, calyptre subfuscâ, foliis serpylli pellucidis. Raii Syn. 92. Vaill. Bot. Par. t. 25. f. 8.

Hudson. Fl. Angl. ed. 2. p. 476.

Lightfoot. Fl. Scot. p. 719.

RADICES nigrae, fibrillosae, parum ramosae.
CAULES subfusiles, dense coacervati, simplices vel ramosi.

FOLIA ovato-lanceolata, patentia, pellucida, pallide viridia, modice carinata, mucrone brevi terminata, ad lenticula vifa. fig. 1.

PEDUNCULI unciales et ultra, pallide lutescentes, siccii contorti, bulbillo praediti oblongo. fig. 2.

CAPSULÆ praelongæ, cylindraceæ, subaurantiaca, incurvæ. fig. 3; annotinae rediores e fusco-purpureæ, e quarum ore egreditur trunculus fer cornu, e ciliis in tubum contorti compositum, apice vero liberis. fig. 6, 7, 8, 9; Calyptra longitudine fere capitulo, acuminate, fig. 4.

OPERCULUM capitulo duplo brevior, acuminatum. fig. 5.

ROOTS black, fibrous, a little branched.
STALKS nearly sessile, growing close together, simple or branched.

LEAVES ovato-lanceolate, spreading, transparent, of a pale green colour, moderately keel'd, terminated by a short point, as magnified. fig. 1.
PEDUNCLES an inch or more in height, of a pale yellow colour, twisted when dry, furnish'd with an oblong bulb. fig. 2.

CAPSULES very long, cylindrical, somewhat orange coloured and crooked, fig. 3; those of the preceding year straighter, of a perplish brown colour, from the mouth of which proceeds a little trunk or horn composed of the cilia twisted into a tube, but loose at top. fig. 6, 7, 8, 9. Calyptra almost the length of the capsule, having a long point. fig. 4.

OPERCULUM twice as short as the capsule and pointed. fig. 5.

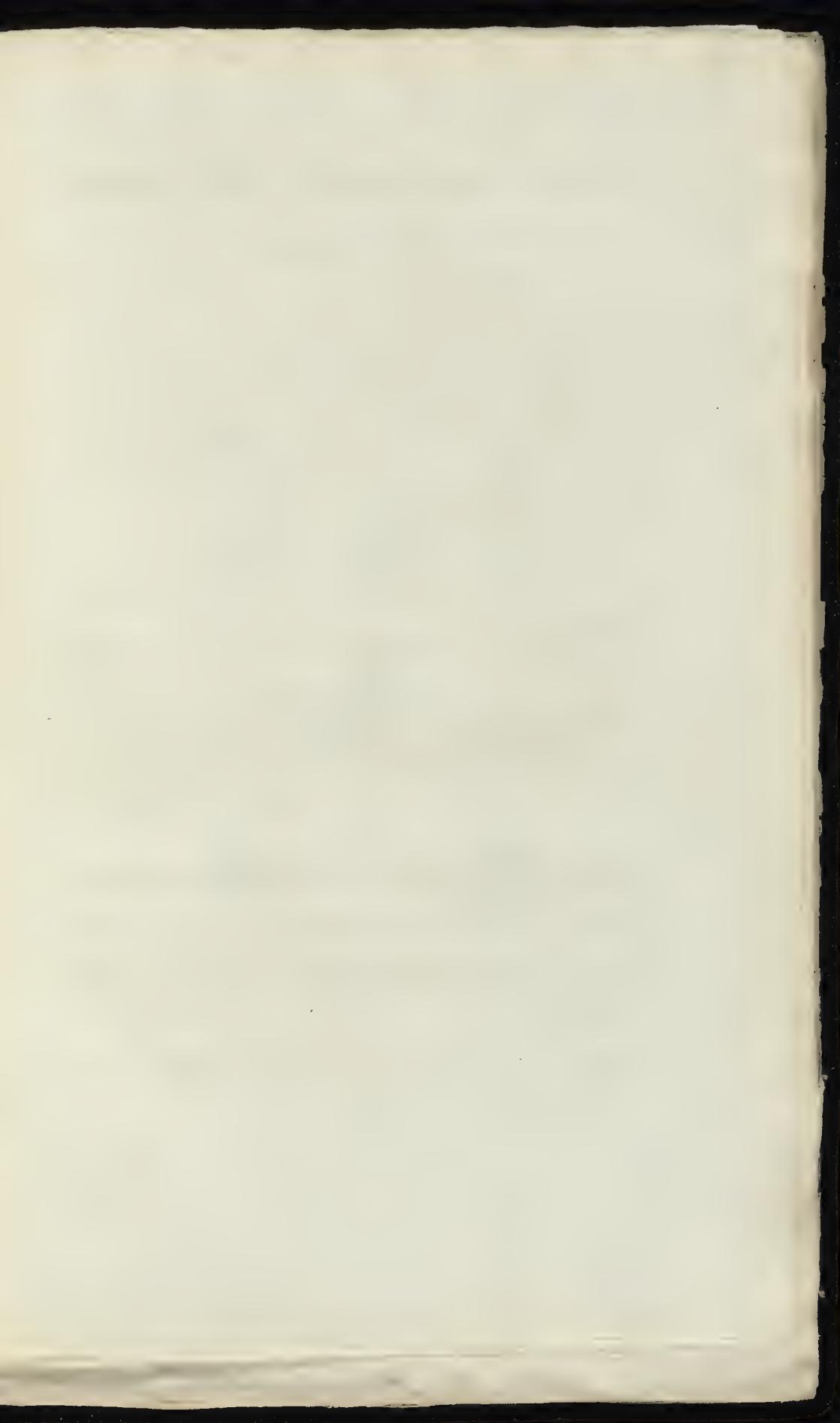
FEW of the Mosses are subject to so little variety, or more easily discovered than the *Bryum subulatum*, before it puts forth its capsules we are struck with the broadness of its leaves and their star-like expansion; as it advances the capsules while covered by their Calyptres are unusually long, pointed, and in general a little bent whence it has acquired the English name of *Awl-shaped*, the capsule in its last state after losing both its Calyptre and Operculum, is peculiarly distinguished by the protrusion of a substance from its mouth, of a whiter colour than the body of the capsule, this substance when magnified is found to consist of a number of threads or filaments forming a thin spiral tube, yet loose and unconnected at top, see fig. 7, 8, 9, the tube is formed before the operculum falls off, for its spiral line may be observed through the transparent operculum when it is in a young state: DILLENIUS using a small magnifier, has not done justice to this very singular and curious character.

This Moss is not uncommon on banks surrounding woods, also in shady lanes; I have observed it in great plenty on a bank on the right hand side as you enter Shirley-Common, passing through Shirley from Croydon, also about Charlton and Coombe Woods.

It produces its Capsules in February and March.



Bryum subulatum.



HYDNUM AURISCALPIUM. FIR HYDNUM.

HYDNUM Lin. Gen. Pl. CRYPTOGAMIA FUNGI.

Fungus horizontalis subtus echinatus.

Raii. Syn. Gen. 1. FUNGI.

HYDNUM auriscalpium stipitatum, pileo dimidiato. Lin. Syst. Vegetab. p. 822. Spec. Plant. p. 1648. Fl. Suecic. 1100. Lappon 524.

ECHINUS petiolo gracili lateral, pileolo plano obscur. Haller Hifl. n. 2321.

ERINACEUS parvus hirsutus exfulvo fuscus, pileo semioculicari, pediculo tenuiore. Mich. Gen. 132. t. 72. f. 8.

FUNGUS erinaceus parvus in conis abietis nascens. Buxb. Cent. 1. t. 57. f. 1.

FUNGUS erinaceus parvus pediculo longiore auriscalpium referens buxei coloris. Buxb. hall. 129. t. 829.

ERINACEUS minimus auriscalpium referens. Cels. Ups. 20.

FUNGUS erinaceus esculentus parvus, pediculo longiore, auriscalpium referens, buxei coloris, in strobilis pinii eveniens. Kram. tent. 146.

Hudson. Fl. Engl. ed. 2. p. 628.

Lightfoot Fl. Scot.

Roxe's Elem. of Bot. app. t. 3.

Schaffer. Fung. tab. 143.

Ex strobilis seu ramulis emortuis pini nascitur hic Fungus. From the decayed cones or small branches of the fir springs this Fungus.

STIPES pollicaris seu bipollicaris, inferne incrassatus, sublanuginosus, superne ad apicem sensim attenuatus, pilis numerosis brevibus, rigidulis, horizontalibus fabrisculis. STALK from one to three inches in height, thicken'd at bottom and somewhat wooly, from thence to the top gradually tapering and beset with numerous, short, horizontal, and somewhat rigid hairs, which give it a manifest roughness.

PILEUS magnitudine unguis indicis, plerumque dimidiatus, rotundato-reniformis, horizontalis, superne planiusculus, fasciis luteis et fuscis in orbem dispositis notatus, hirsutus, denum nigricans, inferne canescens, echinatus, fig. 1. Echini plurimi, conferti, acuminati, simplices. HEAD or cap the size of the forefinger nail, in general halved, of roundish kidney-shape, horizontal, on the upper side flattish, marked with yellow and brown stripes circularly disposed, hirsute, finally becoming black, underneath of a greyish colour, and prickly, fig. 1. Prickles numerous growing thickly together, simple, and running out to a point, fig. 2.

SOME of the more antient Botanists have given to this species of *Hydnum* the name of *auriscalpium* or ear-picker, from its resemblance to the instrument used for that purpose, but it should be observed that it is only when young or small that it bears this resemblance.

Its habitat is on the half decayed branches, and cones of the Fir Tree, especially the latter, most probably it is not attached to any particular species, the Cones on which I found it were of the *Pinus sylvestris*.

In the time of Mr. RAY, it was not known to be a native of Great Britain, of late years it has been found by several inquisitive Botanists in various parts of the Kingdom, as in Scotland by Mr. LIGHTFOOT, near Norwich by Mr. ROSE, and in a small pine wood opposite to, and by the road only separated from Lord MANSFIELD'S Houle near Hampstead by Mr. DIXON, and from which wood the specimens here reprepresented were taken.

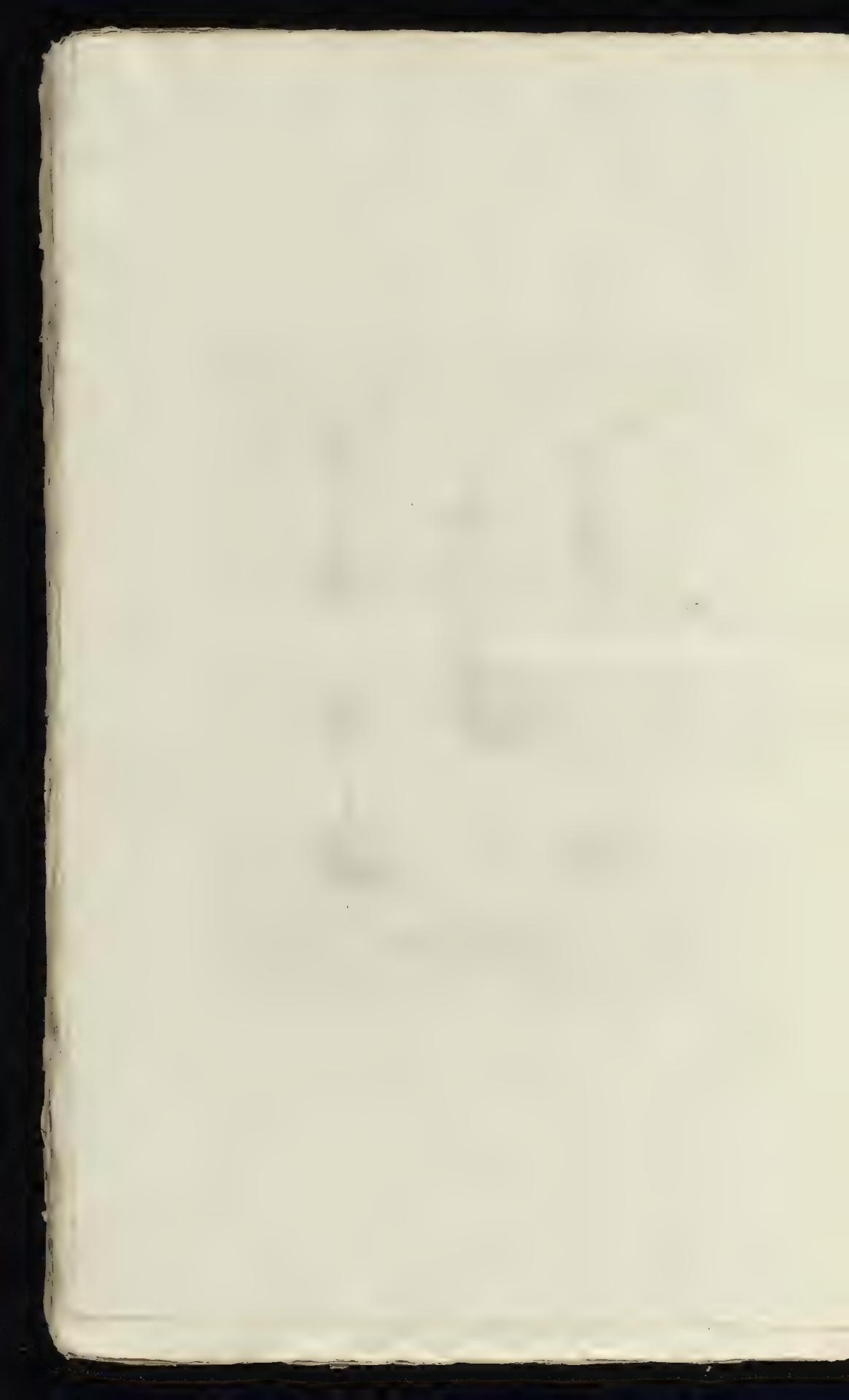
The fifth of October 1780, I found a great number of them in the said wood in the greatest perfection, they grew in the moist part of the wood out of the cones buried under the dead leaves.

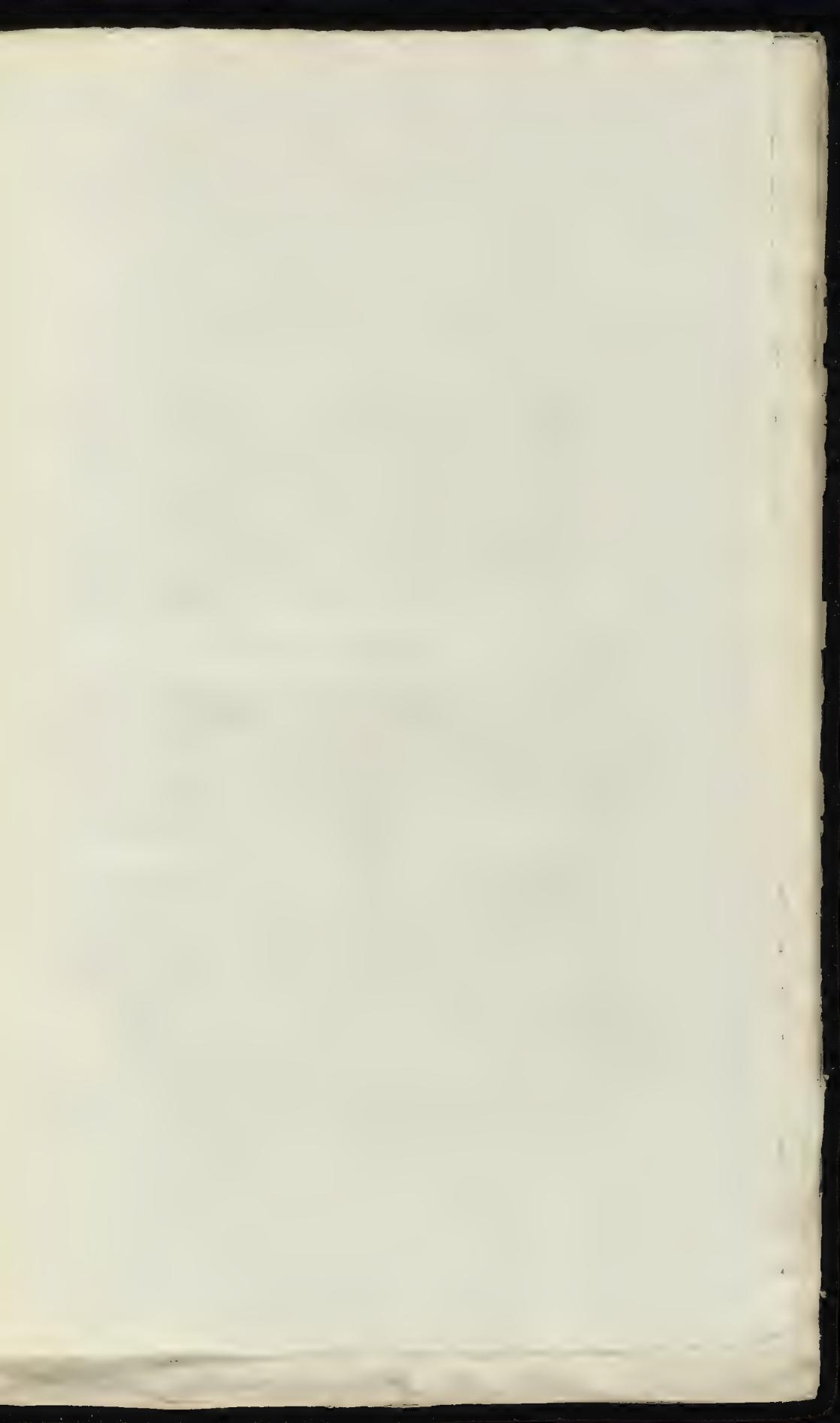
In its use it does not appear to be very important, at least immediately to us, KRAMER applies to it the epithet of *esculentus*, but of all the Fungi this is the least proper for eating, as it is not only small in quantity but biting to the taste, and tough as leather.

To the Student it affords a very good example of the Genus *Hydnum*.



Hydnellum auriscalpium.





AGARICUS GLUTINOSUS. SLIMY MUSHROOM.

AGARICUS Lin. Gen. Pl. FUNGI.

Fungus horizontalis, subtus lamellosus.

Raii. Syn. Gen. 1. FUNGI.

AGARICUS *glutinosus* pileo hemisphaerico stramineo viscido, lamellis horizontalibus, annulo obsoletō.

FUNGI pratenses minores, externe viscidæ, albi et lutei, pediculis brevibus. Raii. Syn. p. 7. 2?

STIPES plerumque solitarius, subinde multiplex, biplicatus ad palmarem, crassit. pennæ coracis, filiformis, albidus, pene solidus, tubo minimo, glutinosus.

ANNULUS paulo infra pileum obsoletus.

PILEUS uncialis, ad binici. lem, stramineus, in adlatis hemisphaericus, semper convexus, et glutine plus minusvis obducus, pluvius indeferens magis fuscescens, et diaphanus evadit, unde striatus aliquando apparet.

LAMELLÆ plurimæ, simplices, e fusco purpurascentes, nebulosæ, integræ circiter 20, horizontalibus, fig. 1, tribus breviioribus interpositis, fig. 2, 3. Pulverem effundunt e fusco purpurascem.

Fig. 5. Fustulum lamellæ vitro auctum, exhibens Capulas femininas quaternas.

STALKS generally single, sometimes clustered, from two to four inches in height, the thickness of a crow quill, thread-shaped, whitish, almost solid, the tube being very small, glutinous.

RING a little below the cap, scarce perceptible. CAP from one to two inches in breadth, of a straw colour; in the full grown ones hemispherical, always convex, and more or less glutinous, wet with rain it becomes browner and transparent, so that it sometimes appears as if flattered.

GILLS numerous, single, of a brownish purple colour, clouded, whole ones about twenty, horizontal, fig. 1, three shorter ones placed betwixt them fig. 2, 3, they throw out a Powder of a brownish purple colour.

Fig. 5. A small piece of the gill magnified, in which are shewn the Capsules which contain the seeds placed four together.

Lithobius mibi cristas non erigit, says LINNÆUS in the preface to his mineralogy; he might with equal propriety have applied the same expression to himself respecting the *Fungi*, as in the last edition of his *Sistema vegetabilium* we are presented with no more than twenty-four species of *Agarici Stipitati*, or Mushrooms with stalks: MICHELI on the contrary has given us Six-hundred and thirty-four; RAY in the third edition of his *Synopsis* has fifty-seven species, fourteen of which are added by DILLENIUS; GLEDITSCH who has written a particular treatise on the *Fungi*, reduces the *Agarici* to thirty-two species, but informs us that there are one hundred and twenty more, involved in much obscurity; SCOPOLI describes one hundred and fourteen, and HALLER one hundred and thirty four; Mr. HUNSON in the last edition of his *Flora Anglicæ* enumerates forty six, and Mr. LIGHTFOOT accurately describes twenty in his *Flora Scotica*; and yet amidst all these enumerations and descriptions, scarce any two of them are agreed about the same Fungus; of the hundred and fourteen described by SCOPOLI there are only eleven which have the names of LINNÆUS, the *procerus* of SCOPOLI is the *annulatus* of LIGHTFOOT, the *ciriacus* of LIGHTFOOT is the *pratensis* of HUNSON, while the *coriaceus* and *pratensis* of SCOPOLI differ from both theirs.

Amidst this confusion of Authors, arising partly from the intricacy of the subject, and partly from their inattention to specific characters, we shall be often obliged to be sparing in our synonyms, and occasionally find it necessary to introduce a new name as in the present instance.

Although the Fungus here figured is a very common one, we are not able with absolute certainty to say that it is either in RAY, LINNÆUS, SCOPOLI, LIGHTFOOT, or HUNSON, the name of *glutinosus* is therefore given it, as it always is more or less slimy, and which sliminess is not confined to the upper part of the cap, but extends to the stalk: this character joined to the roundness of the cap, and the horizontal appearance of the gills, which form a straight line from the edge of the Cap to the stalk, will always readily distinguish this Mushroom.

The Cap varies in size from two lines to two inches in diameter, and the stem from one to four or five in height, the usual colour of the cap is of a pale straw colour, sometimes inclined more to the yellow, and sometimes more to a dirty brown, especially when wet; it is gradual in its decay, not quickly dissolving as some do, nor drying up like others.

It most commonly grows singly, but sometimes springs up in clusters, especially on those spots where dung has been thrown.

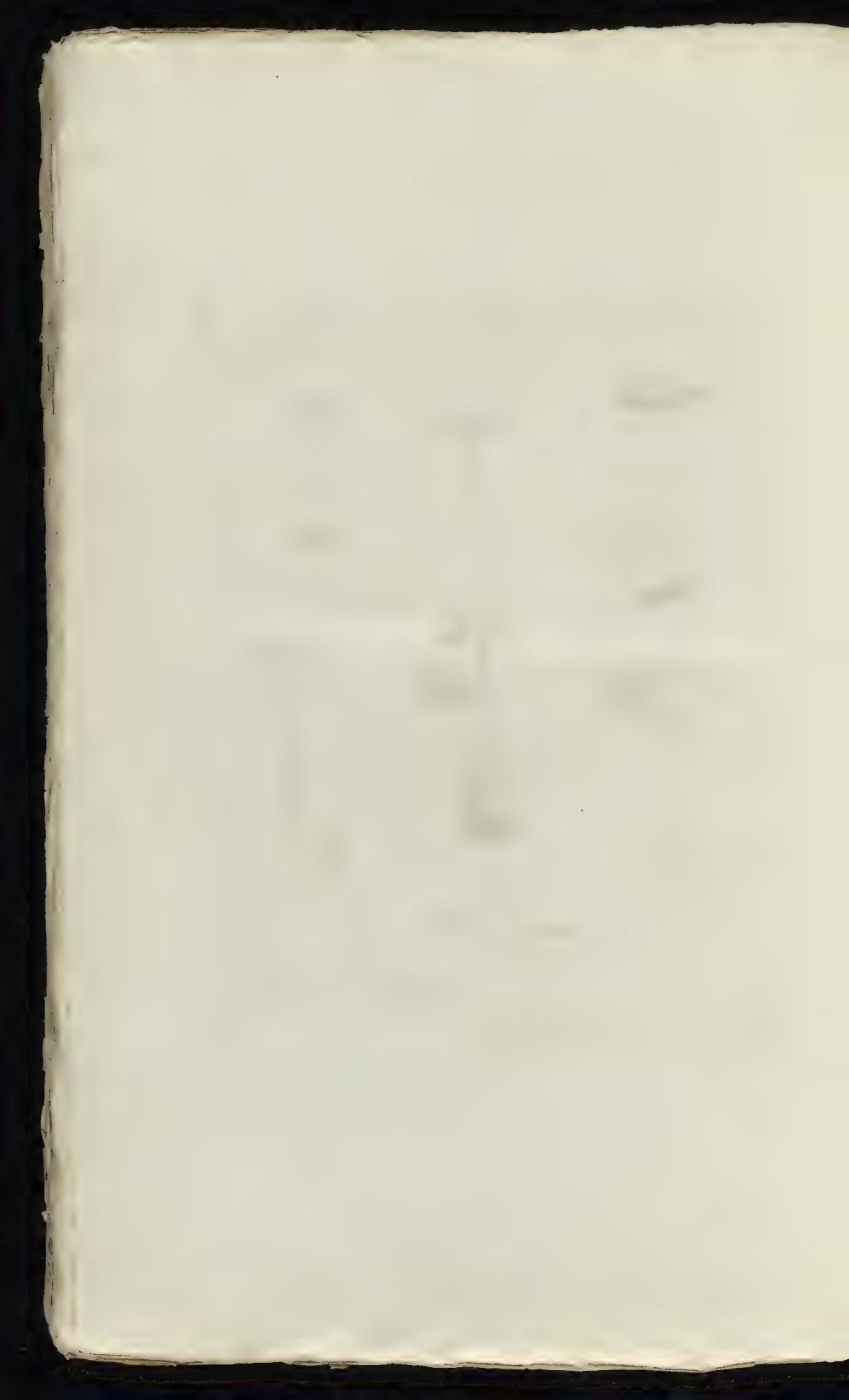
Its place of growth is in exposed, and elevated pastures, especially such as are moist, it may indeed be found in moist meadows, and sometimes in great abundance, the particular places where I have been accustomed to find it plentifully, are on *Petworth-Hill*, and in the pastures about the *Oak of Honour Wood*, also in the pasture one attends, before entering *Horsley-Wood*, going from *Urgeston*.

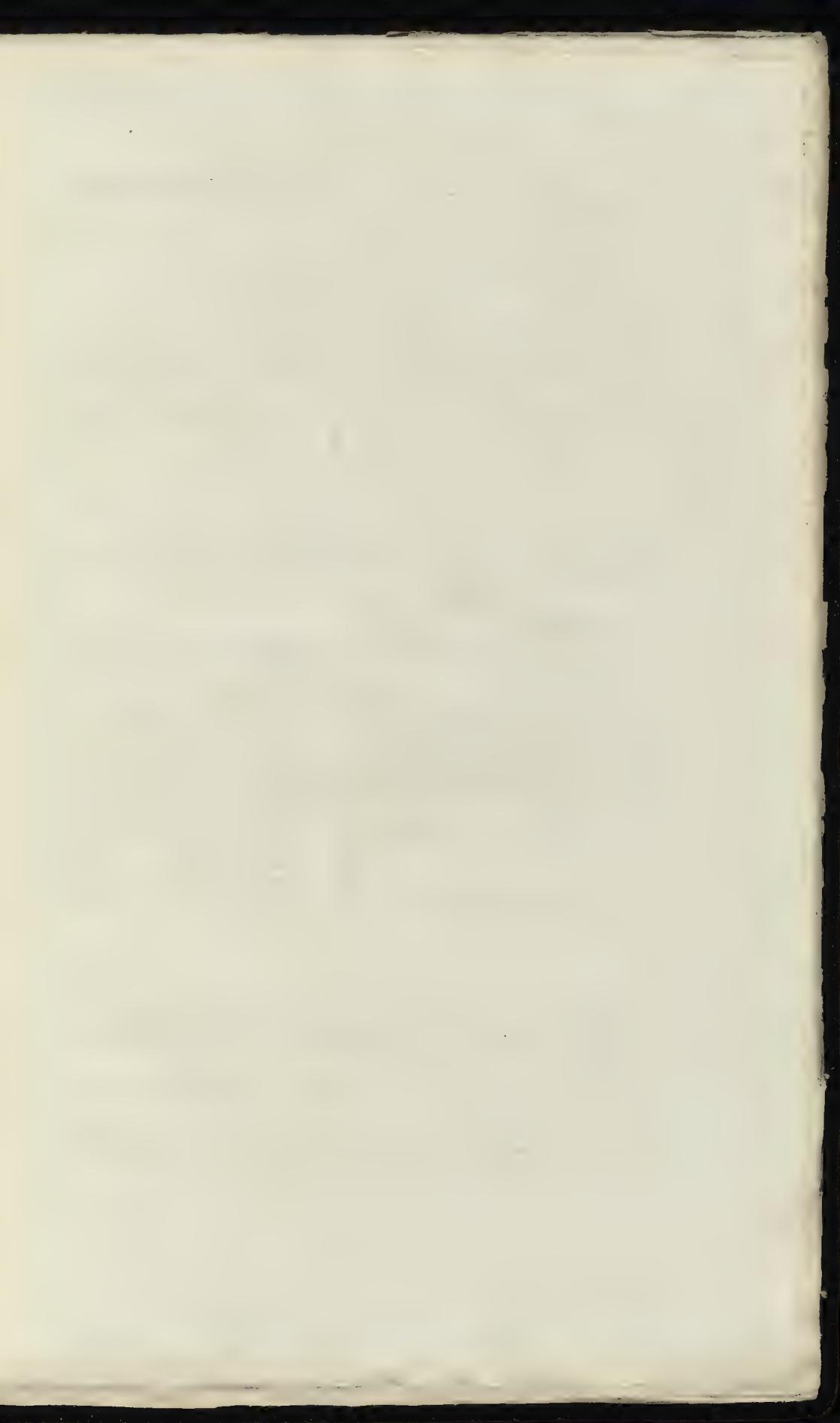
About the latter end of October they are most plentiful, but may be found earlier as well as later.

There is nothing unwholesome or disagreeable in the taste of it, yet its appearance will not recommend it to the lovers of Mushrooms.



Agaricus glutinosus.





AGARICUS PLICATILIS. PLAITED MUSHROOM.

AGARICUS Lin. Gen. Pl. CRYPTOGAMIA FUNGI.

Fungus horizontalis, subtus lamellosus.

Raii. S.n. Gen. 1. FUNGI.

AGARICUS plicatilis spongiosus, pileo campanulato seu plano, murino, pellucido, plicato.

AGARICUS crenulatus membranaceus coruleo-scapularis fulcatus, centro papillari, stipite exili. Muller. Fl.

Dan. t. 832. f. 2.

FUNGUS perpusillus, pediculo oblongo, pileo tenui, utrinque striato, seu flabelli in modum plicatilis.

Raii. Syn. p. 8. n. 42?

Batarr. Fung. Tab. 27. B. C.

STIPES solitarius, in adultis biuncialis et ultra, magnitudine culmi triticei minoris, erectus, teres, filiformis, fistulosis, lavis, albus, tener.

PILEUS cum primo erumpit nucleus nucis avellanæ magnitudine æquat, e flavo-fuscus, vix manifeste striatus, cito oblongo campanulatus evadit, striae subundulatae magis lúculenter apparent, color in murinum incipit transire, nunc adutus, forma in campanulatum mutatur, mox evatura plana, uncialis seu sesquisuncialis, murinus, vertice plano, fuscus seu albido, tenellus, plicatus; cutis diaphanus, fine carne, superne farinâ nullâ adiperfus, fastigii plicarum subvillosum, peractâ florēcentia margo invertitur et nigrefit.

LAMELLÆ paucæ, concolores, pulvorem subtilissimum e carulæo-nigricantem effundentes.

STALKS single, in those which are full grown two inches or more in height, the size of a small wheat straw, upright, round, of the same thickness throughout, hollow, smooth, white, and tender.

CAP when it first springs up is about the size of the kernel of a hazle nut, of a yellowish brown colour, scarce perceptibly striated, it soon becomes of an oblong bell-shape, the small furrows appear more evidently, are somewhat waved, and the colour changes to grey or mouse colour, now full grown, it becomes more bell-shaped, and afterwards appears flat, is from an inch to an inch and half in diameter, of a mouse colour, tender, plaited, the crown flat, brown or whitish; the skin transparent, without any flesh, at top not sprinkled with meal, the ridges of the plaits somewhat villous, when the fructification is over, the edge becomes black and turns in.

GILLS few, of the same colour as the cap, throwing out a very fine powder of a bluish-black colour.

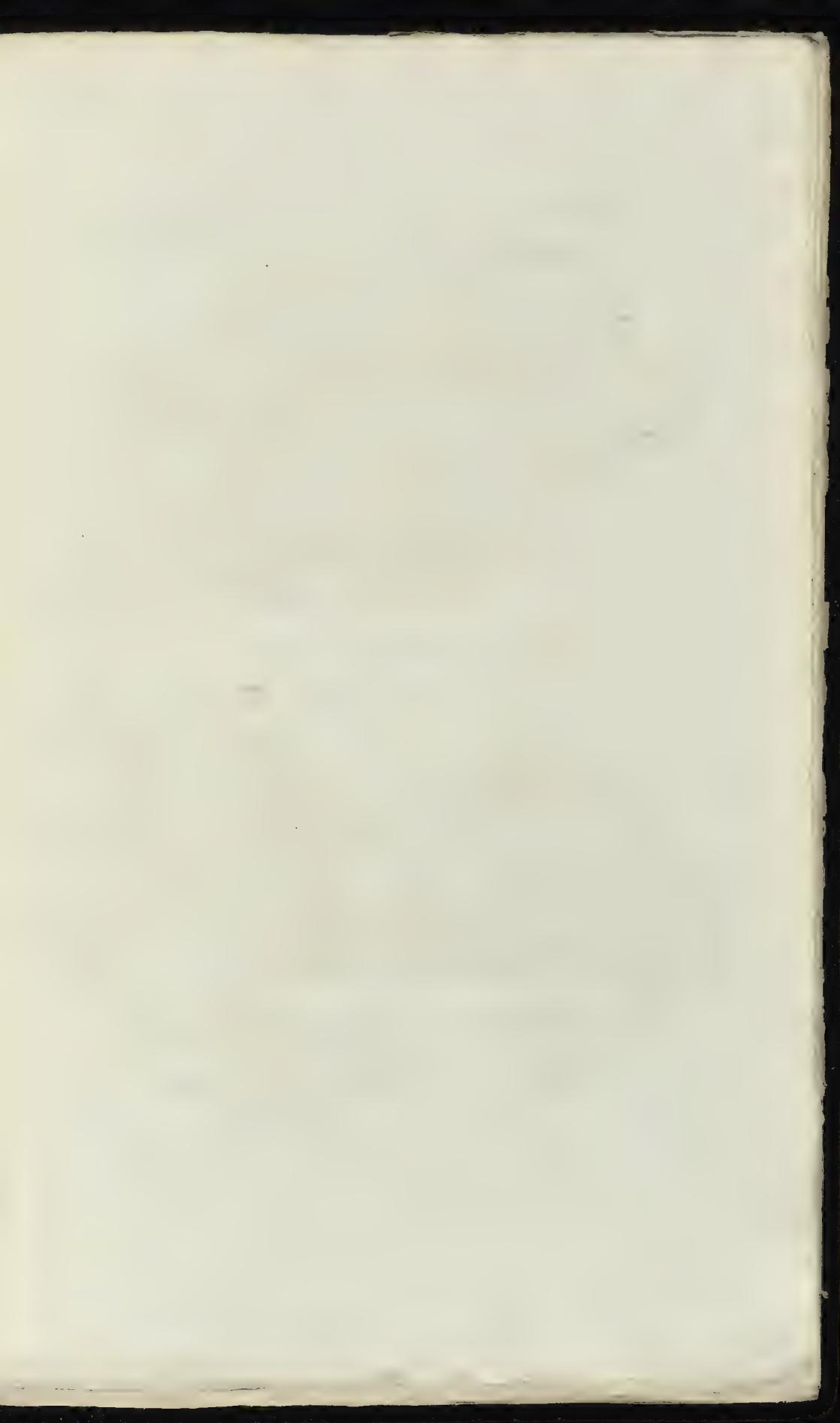
THE Mushroom here figured in its several states is one of those, whose caps in decaying dissolve into a black liquid, these in general are of short duration, and this being so thin and delicate a substance is particularly so. On the twelfth of September ten or twelve of these of different ages made their appearance on a graft plat in my garden, and on the sixteenth no traces of them were to be seen.

Its usual place of growth is in Pastures, Meadows, and Graft Plots, in all of which it is not unfrequent in the Months of September and October.

The Cap is so remarkably plaited, or fan-like, that we could not but prefer a name expressive of so characteristic a circumstance to MULLER'S term *crenulatus*, the *Agaricus tenellus* of Mr. HUDSON approaches so near to ours from his description, that we should have considered it as the same, had not PLUKNETS figure quoted by him been very different.



(*Agaricus phaeotilis*.)



AGARICUS OSTREATUS. OYSTER MUSHROOM.

AGARICUS Lin. Gen. Pl. CRYPTOGAMIA FUNGI.

Fungus horizontalis, subtus lamellosus.

Raii Syn. Gen. I. FUNGI.

AGARICUS *ostreatus* substipitatus, fasciculato-imbricatus, pileo cinereo obovato, margine involuta, lamellis albidis decurrentibus, basi subanastomosantibus.

AGARICUS *ostreatus*. Jacquin. Fl. Austr. t. 104.

Mensibus Decembri et Januarii e truncis arborum praesertim falicis nobiscum excrescent Fungi iconē annexā illustrati; plurimi plerumque similibus stipes seu pars stipitis magis luculentē appetat, lamellis decurrentibus diu manent et demum exsiccantur.

STIPES; et si pileus trunco arboris ut plurimum basi suā adnecitūr nihilominus in quibusdam specimīnibus stipes seu pars stipitis magis luculentē appetat, lamellis decurrentibus tecata.

PILEUS magnitudine, et forma varius, sicut in iconē, in junioribus convexus, lāvis, inurinus, cārulescens, margine integro, involuto, in senescentibus planifolius seu parvus concatenus, fuscus, basi in inferioribus tomento niveo obdecta; caro albissima, crassa, subducens.

LAMELLÆ primum allæ, demum ex rufo-cinerea, plurime, tenues, inaequales, a lineis duabus ad sex late, decurrentes, basi anastomosantes, exsuccæ.

In the months of December and January the Fungi illustrated by the annexed figure, grow with us principally out of the trunks of willow trees; they usually come forth in clusters heap'd one on another, remain a considerable time and finally wither,

STALK: although the cap is for the most part connected to the trunk of the tree by its base, yet in some specimens the stalk or part of a stalk more evidently appears, cover'd with the gills which run down it.

CAP variable both in size and shape as is represented on the plate, in the young ones convex, smooth, mouse coloured, bluish, the edge entire, rolled in; in the older ones flattish, or a little hollow, and brown; the base in the lower ones cover'd with a white kind of down; flesh very white, thick, and sweetish to the taste.

GILLS at first white, afterwards of a reddish ash colour, numerous, thin, unequal, from two lines to fix in breadth, decurrent, uniting so as to form a kind of network at bottom, juicelike.

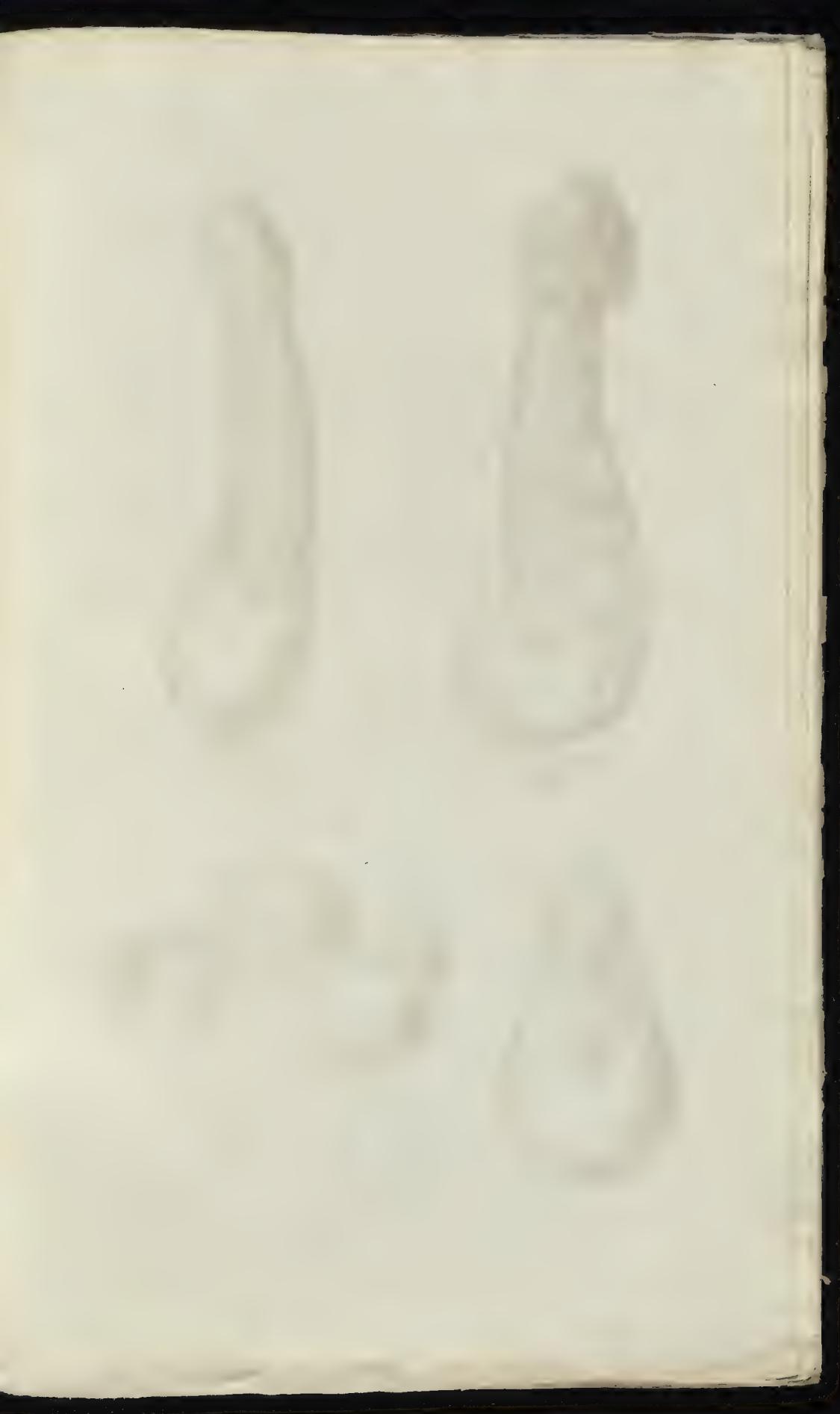
Considering the size and singularity of this Mushroom, and that is by no means uncommon, it is matter of surprize that it should have escaped the notice of our English Botanists; one reason perhaps may be assigned, viz. that it makes its appearance later in the season than most others: in December and January when the weather has been mild I have found it on the bodies of the old Willow Trees, in the neighbourhood of Saint Georges Fields; Mr. DICKSON has observed it on the Elm, in Saint James's Park, and JACQUIN from whom we borrow the name of *ostreatus*, describes it as growing out of the Walnut.

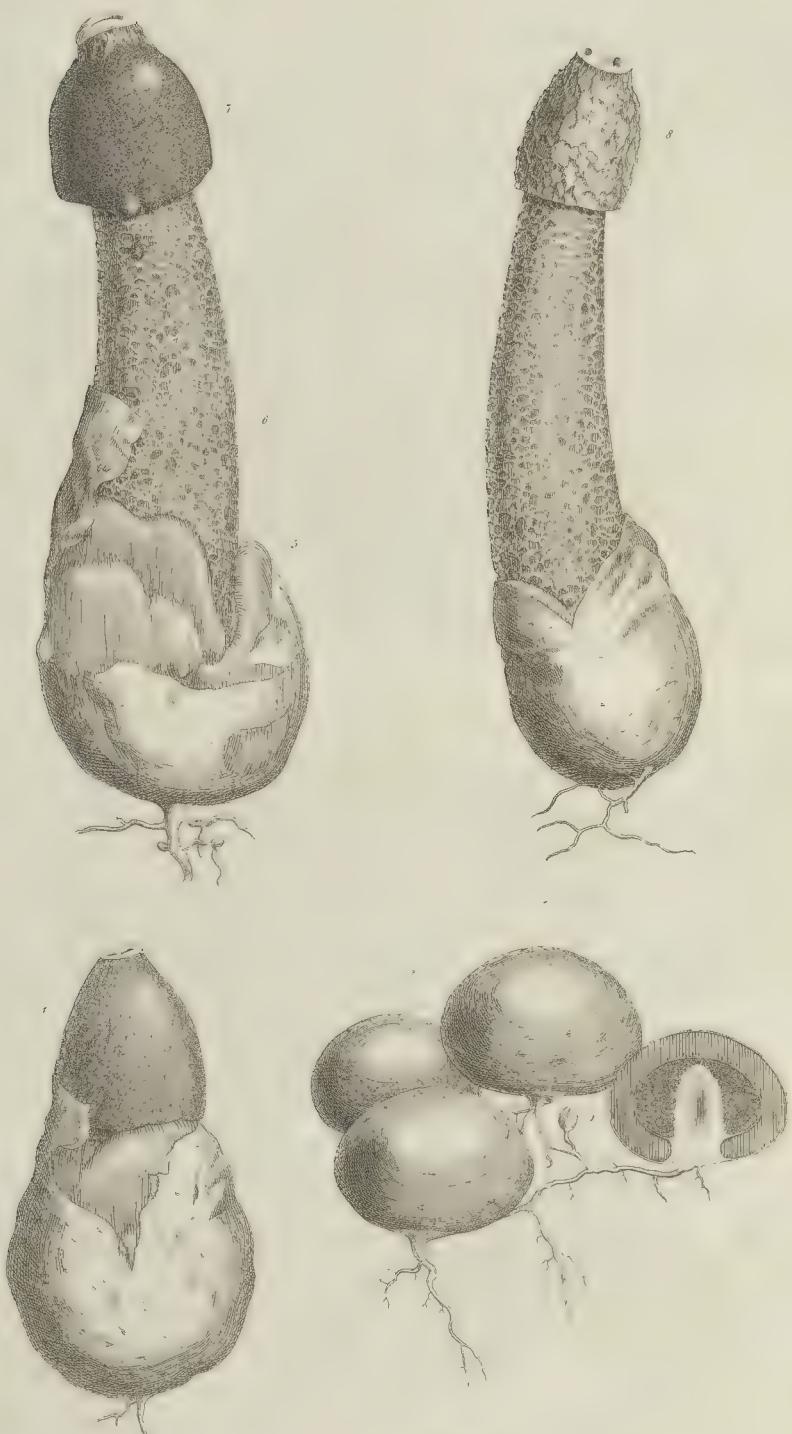
As this species and another with a footy stalk which we propose hereafter to figure, are almost the only ones that are found on trees so late in the year, it cannot easily be mistaken, tho' like most of the family it is given to sport; in general it grows in clusters of three, six, or more of different sizes, placed one over another, bearing a distant resemblance to oysters, when young and perfect they are of a mouse colour with a bloom on them like that of a plum, the edge is rolled in, the gills are white, decurrent, and beautifully anastomosate at bottom, but it is not in every specimen that this distinguishing character is observable, as it grows old the pileus turns up (vid. uppermost fig. on the plate) the gills become of a brownish colour, and frequently much waved, and the whole withers on the tree, the two lowermost figures on the plate represent the Fungus in its young state and shew both sides.

To the smell it is slightly fragrant, to the taste mild, but in chewing tough.



(*Sigillaria ciliatula*)





Phallus impudicus.

PHALLUS IMPUDICUS. STINKING MORELL.

PHALLUS Lin. Gen. Pl. CRYPTOGAMIA FUNGI.

Fungus supra reticulatus, subitus laevis.

Raii. Syn. Gen. i. FUNGI

PHALLUS impudicus volvatus stipitatus, pileo celulofo. Lin. Syst. Vegetab. p. 822. Spec. Plant. 1633.
Fl. Suec. n. 1261.

PHALLUS impudicus. Scopoli Fl. Carn. n. 1655.

FUNGUS fetidus, penis imaginem referens. C. B. pin. 374.

PHALLUS Holländicus Park. 1322. Raii. Syn. p. 12. Hudson. Fl. Angl. ed. 2. p. 629. Lightfoot. Fl. Scot.
p. 1044. Fl. Dan. t. 175. Scheffer Icon. Fung. t. 196. 197. 198.

RADIX fibrosa, fibris majusculis, teretibus, albis, paulo infra terram repentinibus, quibus hic illuc accrescunt globuli albi, qui justam magnitudinem acquisiti, supra terram eminent et Volvæ dicuntur. fig. 1. 2.

VOLVA subrotunda, basi paululum compresa, laevis, magnitudine pilæ palmarie, alba, ponderosa, tunica facis crastifex exterius testa, cui proxime subef gelatina quedam pellucida, flavo-fusca, fig. 3. 5.

STIPES: disrupta volva, exsurgit stipes, crassit pollicis, palmaris et ultra, paululum curvatus, teres, albus, levis, spongiosus, fistulosus, utrinque acuminatus. fig. 6.

PILEUS subconicus, stipiti laxe insidens, primo laevis, solidus, olivaceus, rubricus, mox fætidissimus, cellulis materie seminiferæ externe posita adhuc repletis, quæ diffluente aut mucis exfusa, superficies externa celulosa apparent, interna parum rugosa, vertice truncato, albifimo, oblongo, pervio, fig. 4. 7. 8.

ROOTS fibrous, the fibres large, round, white, creeping a little under the surface of the earth, to which grow here and there white globules or tubercles, which when full grown project above the surface of the earth and are called Volvæ or Eggs. fig. 1. 2.

EGGS roundish, a little flattened at the base, smooth, the size of a tennis ball, white, heavy, covered with an outer coat of a moderate thickness, immediately under which lies a thick mass of transparent jelly of a yellowish brown colour. fig. 3. 5.

STALK: on the bursting of the egg the stalk rises up, and is about the thickness of the thumb, four inches and more in height, a little crooked, round, white, spongy, hollow, very light and pointed at both ends. fig. 6.

CAP somewhat conical, fitting loosely on the stalk, at first smooth, solid, of an olive colour, and slippery, soon becoming highly fetid, the cells being as yet filled with the matter containing the feed, which flowing out or being eaten by flies, the outer surface appears cellular, the inner a little wrinkled, the top as if cut off, very white oblong and open. fig. 4. 7. 8.

IN the months of August, September, and October this singular Phenomenon of the Fungus tribe makes its appearance in Woods, Hedgerows, and Hedges, in some places abundantly, in others rarely, near London it has been found in Coombwood, and Norwood, but more plentifully in a small fir wood near the Spaniard Hampstead-heath, before remarked for producing the *Hydnium auriculatum*; in this wood on the 24th of September 1780 I discovered near a dozen growing within a small space of each other, some were full grown, others in their egg state, risen about half way out of the ground, and when taken up appearing like so many small tennis balls, vid. fig. 2; several of them I carefully carried home, one which was in its greatest perfection my draughtsman for the sake of more conveniently drawing took with him to the Spaniard (a place of entertainment on the spot,) but the fetor arising from it quickly pervading every part of the house and rendering it intolerable we were obliged to get rid of it.

On perpendicularly dividing with a sharp knife one of those I had taken home, I was not more struck with the beautiful appearance which the surface of each half exhibited, than the thick mass of pure, transparent jelly, of a brownish yellow colour, deposited betwixt two membranes, immediately under the outer surface, and which enveloped the fungus as yet in embryo. vid. fig. 3.

On examining my Fungi in their egg state the next morning, I had the satisfaction to observe that in one of them, the cap of the fungus had just broke through its integuments, and was pushing itself up through the jelly, I thought this a proper opportunity of observing how quick it was in its growth, and found that from the time of its breaking through the outer skin (half past eight o'clock) to the time that it acquired its full height a space intervened of about five hours, in which time it had grown three inches and three quarters; an instance of the quickness of vegetation scarce credible, and perhaps not to be equalled by any other plant.

The Cap on its first coming forth, being covered with the jelly through which it had passed, and being also of a light olive colour but perfectly opaque not unaptly resembled a lump of bird-lime. vid. fig. 4; this appearance it retained 'till eleven o'clock, when in some parts it became of a darker colour, at half past twelve, the whole outer surface of the cap was changed to a very dark olive, it now began smell very offensively, flies came into the room and settled on it, a little past one, it began to dissolve, and drop off, and the cells containing this substance about the top of it began to be visible. fig. 7; it was now placed out of doors when the Pileus was almost immediately covered with several species of Flies mostly of the larger sort, who instead of sticking to and perishing on it as related by Gladisch in about two hours left the cells perfectly empty vid. fig. 8.

The disagreeable smell arising from the *Phallus impudicus* which alone is often sufficient to detect it, and from which it has acquired in some parts of the kingdom the name of *Stink-borne* has usually been compared to Carrion, and generally considered as the effect of its putrefaction—to me the smell appears to be altogether sui generis, and not to arise from putrefaction, at least a general putrefaction of the plant—it first arises from the substance lodged in the cells on the out-side of the pileus, which constitute the generic character of the *Phallus*, and with which the feeds of this plant are doublet's incorporated, as soon as this substance begins to liquefy, the effluvia is perceptible, at this time every other part of the plant is perfectly sweet, not excepting the jelly which it must be allowed afterwards acquires a disagreeable odour, apparently from its putrefaction—the Flies allured by the effluvia from the pileus, do not settle on it, to deposit their eggs as on the *Stapelia fæcidea* or putrid meat, but merely to feed on it, and which they appear to do most deliciously; scarcely ever suffering a drop of the liquid to fall on the ground, whence this species would soon become extinct, had not provident nature supplied it with a root which like the Potatoe throws out numerous offsets.

This plant affords nourishment not only to various species of flies, but also to Snails and Slugs who are extremely fond of its stem.

We may remark that the top of the cap has sometimes two perforations, instead of one its usual number.

